

DOQUP - On-line documentation system for quality assurance
of study programmes in partner countries

SOFTWARE ANALYSIS

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Sommario

1. AIM	4
2. FUNCTIONS	4
2.1 UNIVERSITIES LIST	4
2.2 LANGUAGE SELECTION	4
2.3 STUDY PROGRAMME SELECTION	5
2.4 LOGIN	5
2.5 UNIVERSITIES	6
2.6 USERS	7
2.7 ACADEMIC YEARS	7
2.8 DIDACTIC ORGANISATIONAL STRUCTURES	7
2.9 TEACHER ROLES	7
2.10 TEACHERS	8
2.11 SECONDARY SCHOOLS	8
2.12 TYPOLOGIES OF EDUCATIONAL ACTIVITY	8
2.13 FORMS OF EDUCATION	9
2.14 TEACHING PERIODS	9
2.15 STUDY PROGRAMME TYPOLOGIES	9
2.16 ASSESSMENT METHODS	10
2.17 ASSESSMENT CRITERIA	10
2.18 DOCUMENTATION OF THE STUDY PROGRAMMES	11
2.18.1 STUDY PROGRAMMES LIST	11
2.18.2 0 - GENERAL INFORMATION OF THE STUDY PROGRAMME (PRESENTATION)	13
2.18.3 A - NEEDS AND OBJECTIVES	17
2.18.4 B - EDUCATIONAL PROCESS	18
2.18.5 C – RESOURCES	22
2.18.6 D – MONITORING AND RESULTS	25
2.18.7 E – MANAGEMENT SYSTEM FOR QUALITY	41
3. WEB SERVICE	42
3.1 GET MONITORING DATA	42
3.2 INSERT MONITORING DATA	44
3.3 DELETE MONITORING DATA	46
4. DATA MODELING	48
4.1 BASE TABLES	48
4.2 DESCRIPTIONS AND ATTACHMENTS	51
4.3 STANDARDS, REQUIREMENTS AND DOCUMENTATION	51

4.4	STUDY PROGRAMMES	54
4.5	CURRICULUM	55

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Approvato da			
Distribuito a			

1. AIM

The document contains the software analysis for the implementation of DOQUP - on-line documentation system for quality assurance of study programmes in partner countries.

2. FUNCTIONS

DOQUP is a web application accessible through a web browser at the address (to be defined).

2.1 UNIVERSITIES LIST

The first page of the system is a public page that shows the list of the Universities of the partner countries:

TEMPUS DOQUP - Documentation for Quality Assurance of Study Programmes			
Short description	Long description	URL	
First University	University one long	www.one.it	Study Programmes
Second University	University two long	www.two.it	Study Programmes
Third University	University three long	www.three.it	Study Programmes

2.2 LANGUAGE SELECTION

The system proposes the default language associated to the selected University (English or Russian). The

DOQUP	On-line documentation system for quality assurance of study programmes in partner countries	Pagina 4 di 55
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user can change the proposed default language.

When the user changes the language the system shows the translations in the selected language for:

- All the labels of the page fields
- All the descriptions of the data displayed by the pages of the application.

2.3 STUDY PROGRAMME SELECTION

The public user selects the University of interest choosing from the list of the Universities of the partner countries, and he presses the button "Study Programmes"; the system navigates to the Study programmes list page.

2.4 LOGIN

The application is available to public users and registered users:

- Public users: they can only see the information about the study programmes of the selected University
- Registered users (e.g. the reference teacher of the study programme): they can login to the application typing in Username and Password, to author the documentation and the underlying base tables.

TEMPUS DOQUP - Documentation for Quality Assurance of Study Programmes	
Kion University	Login
Username	John Smith
Password	*****
University	First University

After the login, the system navigates to the menu of the application:

DOQUP	On-line documentation system for quality assurance of study programmes in partner countries	Pagina 5 di 55
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TEMPUS DOQUP - Documentation for Quality Assurance of Study Programmes
 Kion University Logout

University
Users
Academic Years
Didactic Organizational Structures
Teacher Role
Teachers
Secondary Schools
Typologies of Educational Activities
Forms of Education
Teaching Periods
Study Programmes Typologies
Assessment Methods
Assessment Criteria
Study Programmes

2.5 UNIVERSITIES

Management of the universities.

This function is only available to registered users with "ROLE_ADMIN" role.

The user can update the following information of the selected University:

- University code
- University short description
- University long description
- University url address
- University default language

2.6 USERS

Definition and management of the application users of the selected University.

This function is only available to registered users with “ROLE_ADMIN” role.

The user can insert new users, delete users, or update the following information of the User:

- User name
- User password
- User role: ROLE_ADMIN or ROLE_USER

2.7 ACADEMIC YEARS

Definition and management of the academic years.

This function is only available to registered users with “ROLE_ADMIN” role.

The user can insert new academic years, delete academic years (only until it is not referenced by a study programme), or update the following information of the academic year:

- Academic year
- Academic year short description

Note: Academic years are shared among all the Universities, so you should not modify their description otherwise this modification will affect all the other Universities.

2.8 DIDACTIC ORGANISATIONAL STRUCTURES

Definition and management of the Didactic organizational structures of the selected University (e.g. departments) responsible for the study programme.

This function is only available to registered users with “ROLE_ADMIN” role.

The user can insert new Didactic organizational structures, delete Didactic organizational structures (only until it is not referenced by a study programme), or update the following information of the Didactic organizational structure:

- Didactic organizational structure code
- Didactic organizational structure short description
- Didactic organizational structure long description

2.9 TEACHER ROLES

Definition and management of the teacher roles (e.g. assistant professor, visiting professor, lecturer).

This function is only available to registered users with “ROLE_ADMIN” role.

The user can insert new teacher roles, delete teachers roles (only until it is not referenced by a teacher), or update the following information of the teacher role:

- Teacher roles code
- Teacher roles short description
- Teacher roles long description

Note: Teacher roles are shared among all the Universities, so you should not modify their description otherwise this modification will affect all the other Universities.

2.10 TEACHERS

Definition and management of the teachers of the selected University.

This function is only available to registered users.

The user can insert new teachers, delete teachers (only until it is not referenced by a didactic activity), or update the following information of the teacher:

- Teacher code
- Teacher first name
- Teacher last name
- Teacher role
- Teacher URL

Note: it is possible to insert a new teacher only if it doesn't already exist a teacher with the same code for the selected University.

2.11 SECONDARY SCHOOLS

Definition and management of the secondary schools of the Country of the selected University.

This function is only available to registered users.

The user can insert new secondary schools, delete secondary schools (only until it is not referenced by the monitoring table D1_2_B_3), or update the following information of the secondary school:

- Secondary school code
- Secondary school short description
- Secondary school long description

Note: it is possible to insert a new secondary school only if it doesn't already exist a secondary school with the same code for the selected University.

2.12 TYPOLOGIES OF EDUCATIONAL ACTIVITY

Definition and management of the typologies of educational activity (e.g. theoretical lessons, practical lessons, laboratories, projects).

This function is only available to registered users with "ROLE_ADMIN" role.

The user can insert new typologies of educational activity, delete typologies of educational activity (only until it is not referenced by a didactic activity teacher or a didactic activity credit), or update the following information of the typology of educational activity:

- Typology of educational activity code

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- Typology of educational activity short description
- Typology of educational activity long description

Note: Typologies of educational activity are shared among all the Universities, so you should not modify their description otherwise this modification will affect all the other Universities.

2.13 FORMS OF EDUCATION

Definition and management of the forms of education (e.g.: face to face education, distance education, etc).

This function is only available to registered users with “ROLE_ADMIN” role.

The user can insert new forms of education, delete forms of education (only until it is not referenced by a didactic activity), or update the following information of the form of education:

- Form of education code
- Form of education short description
- Form of education long description

Note: Forms of education are shared among all the Universities, so you should not modify their description otherwise this modification will affect all the other Universities.

2.14 TEACHING PERIODS

Definition and management of the teaching periods of the selected University (e.g. semester).

This function is only available to registered users with “ROLE_ADMIN” role.

The user can insert new teaching periods, delete teaching periods (only until it is not referenced by a didactic activity), or update the following information of the teaching period:

- Teaching period code
- Teaching period short description
- Teaching period long description

2.15 STUDY PROGRAMME TYPOLOGIES

Definition and management of the study programme typologies (e.g. undergraduate, graduate).

This function is only available to registered users with “ROLE_ADMIN” role.

The user can insert new study programme typologies, delete study programme typologies (only until it is not referenced by a study programme), or update the following information of the study programme typology:

- Study programme typology code
- Study programme typology duration
- Study programme short description
- Study programme long description

DOQUP	On-line documentation system for quality assurance of study programmes in partner countries	Pagina 9 di 55
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Note: Study programme typologies are shared among all the Universities, so you should not modify their description otherwise this modification will affect all the other Universities.

2.16 ASSESSMENT METHODS

Definition and management of the assessment methods (e.g. oral, written).

This function is only available to registered users with "ROLE_ADMIN" role.

The user can insert new assessment methods, delete assessment methods (only until it is not referenced by a didactic activity), or update the following information of the study assessment method:

- Assessment method code
- Assessment method short description
- Assessment method long description

Note: Assessment methods are shared among all the Universities, so you should not modify their description otherwise this modification will affect all the other Universities.

2.17 ASSESSMENT CRITERIA

Definition and management of the assessment criteria (e.g. grade, judgement).

This function is only available to registered users with "ROLE_ADMIN" role.

The user can insert new assessment criteria, delete assessment criteria (only until it is not referenced by a didactic activity), or update the following information of the study assessment criteria:

- Assessment criteria code
- Assessment criteria short description
- Assessment criteria long description

Note: Assessment criteria are shared among all the Universities, so you should not modify their description otherwise this modification will affect all the other Universities.

2.18 DOCUMENTATION OF THE STUDY PROGRAMMES

Visualization and authoring of the documentation of the study programmes.

The function is available to public users and registered users:

- Public users can only see the information of the study programmes of the selected University.
- Registered users (e.g. the reference teacher of the study study programme) can author the documentation of the study programmes.

2.18.1 STUDY PROGRAMMES LIST

The user selects the academic year and the system shows the list of the study programmes offered that year by the University, split per study programme typology (e.g. graduate and post graduate study programmes)

TEMPUS DOQUP - Documentation for Quality Assurance of Study Programmes		
Kion University	Language English	Logout
Academic Year	2013/2014	
Undergraduate Study programmes		
A001 - Information Engineering A002 - Electrical Engineering and Computer Science A003 - Materials Science and Engineering A004 - Mechanical Engineering A005 - Nuclear Science and Engineering		
Graduate Study programmes		
B001 - Aeronautics and Astronautics B002 - Biological Engineering B003 - Chemical Engineering B004 - Civil and Environmental Engineering		

The toolbar contains the following buttons:

- **ADD**: the button lets to create a new study programme.
- **EDIT**: the button lets to modify the information of a study programme.
- **COPY**: the button lets to copy a study programme.
- **DELETE**: the button lets to delete a study programme.

- **INFO:** the button lets to view the user an the date of creation and update of a study programme.
- **RELOAD:** the button lets to reload the study programme list, canceling any modification not still saved.
- **SAVE:** the button lets to save the modification made to a study programme.

When the user selects a study programme, the system shows its general information page.

2.18.20 - GENERAL INFORMATION OF THE STUDY PROGRAMME (PRESENTATION)

The requirements for the quality assurance of the study programme are grouped into folders. The first folder contains the general information about the study programme.

TEMPUS DOQUP - Documentation for Quality Assurance of Study Programmes		Kion University		Language English	Logout
A001 - Information Engineering					
0 – GENERAL ENTRY					
Department	Electronics				
Typology	Graduate Study programme	Duration	Three Years		
Degree profile					
<p>Students, professors, and researchers in biological engineering explore issues of physical and chemical sciences such as biochemistry, biophysics, pharmacology, and toxicology from both a molecular life science and an engineering perspective Throughout the curriculum our</p>					
Type of degree and length					
<p><i>Identify the type of degree, for example whether the degree is the result of a programme offered by a single institution or whether the degree is the result of a joint programme (joint degree or double / multiple degree).</i></p>					
Institution(s)					
<p><i>Give the official name of the awarding institution(s) and the country where it is based. In case of joint SPs indicate also which is the coordinating institution.</i></p>					

TEMPUS DOQUP - Documentation for Quality Assurance of Study Programmes	
Kion University	Language English Logout
A001 - Information Engineering	
0 – GENERAL ENTRY	
Accreditation Organisation(s)	
<input type="text"/>	
Purpose	
<input type="text"/>	
Discipline(s) / Subject area(s)	
<input type="text"/>	
General / Specialist Focus	
<input type="text"/>	

TEMPUS DOQUP - Documentation for Quality Assurance of Study Programmes	
Kion University	Language English Logout
A001 - Information Engeneering	
0 – GENERAL ENTRY	
Orientation <input style="width: 100%; height: 50px;" type="text"/>	
Teaching and Learning Approaches <input style="width: 100%; height: 50px;" type="text"/>	
Assessment Methods <input style="width: 100%; height: 50px;" type="text"/>	
Distinctive Features <input style="width: 100%; height: 50px;" type="text"/>	

The registered user can edit the information of every field of the page (e.g. Degree profile) writing a text or specifying a URL or attaching one or more files:

TEMPUS DOQUP - Documentation for Quality Assurance of Study Programmes Kion University Language English Logout	
A001 - Biological Engeneering Degree profile	
The degree profile ...	
Link	www.kion.it
Attachements	File1.pdf File2.doc

2.18.3A - NEEDS AND OBJECTIVES

The second folder contains the requirements about "Needs and objectives".

TEMPUS DOQUP - Documentation for Quality Assurance of Study Programmes		
Kion University	Language English Logout	
A001 - Biological Engineering		
<table border="1" style="margin: auto;"> <tr> <td data-bbox="320 696 742 757">A - NEEDS AND OBJECTIVES</td> </tr> </table>		A - NEEDS AND OBJECTIVES
A - NEEDS AND OBJECTIVES		
A1 - Educational needs of the labour market		
Organisations representative of labour market consulted		
Methods and schedule of the consultation		
Identified educational needs of the labour market		

TEMPUS DOQUP - Documentation for Quality Assurance of Study Programmes Kion University Language English Logout	
A001 - Biological Engeneering	
A2 - Educational objectives	
<div style="border: 1px solid black; height: 50px; width: 100%;"></div>	
A3 - Learning outcomes	
Learning outcomes	<div style="border: 1px solid black; height: 40px; width: 100%;"></div>
Comparison with learning outcomes of other study programmes of the same typology	<div style="border: 1px solid black; height: 40px; width: 100%;"></div>

2.18.4 B - EDUCATIONAL PROCESS

The folder contains the requirements about the “Educational process”: the activities able to accomplish the established learning.

TEMPUS DOQUP - Documentation for Quality Assurance of Study Programmes

Kion University

Language English

Logout

A001 - Biological Engeneering

B - EDUCATIONAL PROCESS

B1 - Admission requirements

Qualifications, requirements and criteria for the admission to the SP

Assessment of the mastery of the admission requirements

B2 - Design and planning of the educational process

Curriculum

Course Year	Code	Short Description
1	001	Mathematics
2	002	Geometry

Characteristics of the graduation exam

Characteristics of the didactic units

Suitability of the syllabus to the achievement of the expected learning outcomes

Criteria for students' studies progression

Calendar and timetable of didactic units and exams

Regarding the field B2 - Design and planning of the educational process the system let the user to define the curriculum and the characteristics of the modules, contents, typologies of educational activities (e.g. theoretical lessons, practical lessons, laboratories, projects, etc.) also in terms of number of hours/credits for each typology:

TEMPUS DOQUP - Documentation for Quality Assurance of Study Programmes	
Kion University	Language English
Logout	
Code	X025
Short Description	Mathematics
Course Year	1
Teaching Period	First Semester
Theoretical lessons	30 Hours, 6 Credits
Practical lessons	10 Hours, 2 Credits
Credits	8
Forms of education	Face to face
Assessment methods	written examinations
Assessment criteria	attribution of a final grade
Teachers	John Smith, Theory, 2 credits, 20 hours Marc Cod, Practical lesson, 1 credits, 10 hours
Preparatory didactic units	Chemistry
Didactic material of reference	Exercise book
Contents	The course ...
Learning outcomes	The course ...

TEMPUS DOQUP - Documentation for Quality Assurance of Study Programmes Kion University Language English Logout					
A001 - Biological Engineering <div style="text-align: center; border: 1px solid black; padding: 5px; width: fit-content; margin: 0 auto;">B - EDUCATIONAL PROCESS</div>					
B3 - Realization of the educational process <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; padding: 10px; vertical-align: top;"> Correspondence of the educational process with the designed/planned development </td> <td style="width: 50%; border: 1px solid black; height: 40px;"></td> </tr> <tr> <td style="padding: 10px; vertical-align: top;"> Adequacy of the assessment tests and correctness of the evaluation </td> <td style="border: 1px solid black; height: 40px;"></td> </tr> </table>		Correspondence of the educational process with the designed/planned development		Adequacy of the assessment tests and correctness of the evaluation	
Correspondence of the educational process with the designed/planned development					
Adequacy of the assessment tests and correctness of the evaluation					

2.18.5C – RESOURCES

The folder contains the requirements about the “Resources”: teaching staff, facilities, financial resources, student support services and partnerships with businesses, research institutions and other Higher Education Institutions.

TEMPUS DOQUP - Documentation for Quality Assurance of Study Programmes		
Kion University	Language English Logout	
A001 - Biological Engineering		
<table border="1" style="margin: auto;"> <tr> <td style="padding: 5px;">C - RESOURCES</td> </tr> </table>		C - RESOURCES
C - RESOURCES		
C1 – Teaching staff		
Teaching staff	lecturers and list of the didactic units they are in charge of, academic or professional qualification, curriculum vitae, support	
Teaching support staff		
C2 – Facilities		
Classrooms		
Rooms for individual study		
Laboratories		
Libraries		
Other resources and special initiatives		

The next page shows the requirements C3, C4 and C5.

TEMPUS DOQUP - Documentation for Quality Assurance of Study Programmes Kion University		Language English Logout
A001 - Biological Engineering		
<div style="border: 1px solid black; display: inline-block; padding: 5px 20px;">C - RESOURCES</div>		
C3 - Financial resources		
Needs of financial resources		
Availability of financial resources		
C4 - Student support services		
Student administrative office		
Orienteering service for students in entrance		
Tutoring service		
Service for the carrying out of training periods outside University		
Service for the students' international mobility		
Job placement service		

TEMPUS DOQUP - Documentation for Quality Assurance of Study Programmes Kion University Language English Logout					
A001 - Biological Engineering <div style="text-align: center; border: 1px solid black; padding: 5px; width: fit-content; margin: 0 auto;">C - RESOURCES</div>					
C5 - Partnerships <table border="0" style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;">Partnerships for the development of training periods outside University</td> <td style="width: 50%; border: 1px solid black; height: 40px;"></td> </tr> <tr> <td style="vertical-align: top;">Partnerships for the developing of international mobility periods</td> <td style="border: 1px solid black; height: 40px;"></td> </tr> </table>		Partnerships for the development of training periods outside University		Partnerships for the developing of international mobility periods	
Partnerships for the development of training periods outside University					
Partnerships for the developing of international mobility periods					

2.18.6D – MONITORING AND RESULTS

The folder contains the requirements about the “Results”.

TEMPUS DOQUP - Documentation for Quality Assurance of Study Programmes Kion University Language English Logout	
A001 - Biological Engeneering	D – MONITORING AND RESULTS
<p>D1 - Entrance students</p> <p>Assessment of the mastery of the admission requirements</p> <div style="border: 1px solid black; height: 30px; margin-bottom: 10px;"></div> <p>D1.1_B_1 – Results of the tests for the assessment of the mastery of the admission requirements per grade range</p> <p>D1.1_B_2 – Results of the tests for the assessment of the mastery of the admission requirements per grade</p> <p>Enrolments at the first course year</p> <div style="border: 1px solid black; height: 30px; margin-bottom: 10px;"></div> <p>D1.2_B_1 – Bachelor students enrolled at the first course year</p> <p>D1.2_B_2 - Bachelor students enrolled at the first course year subdivided per geographical provenance</p> <p>D1.2_B_3 - Bachelor students enrolled at the first course year subdivided per school of provenance</p> <p>D1.2_B_4 - Bachelor students enrolled at the first course year subdivided per grade of the school-leaving examination per grade range</p> <p>D1.2_B_5 - Bachelor students enrolled at the first course year subdivided per grade of the school-leaving examination per grade</p>	

The list continues on the next page:

TEMPUS DOQUP - Documentation for Quality Assurance of Study Programmes Kion University Language English Logout		
A001 - Biological Engeneering		
D – MONITORING AND RESULTS		
<p>D1.2_M_1 – Master students enrolled at the first course year</p> <p>D1.2_M_2 - Master students enrolled at the first course year subdivided per geographical provenance</p> <p>D1.2_M_3 - Master students enrolled at the first course year subdivided per first cycle programme of provenance</p> <p>D1.2_M_4 – Master students enrolled at the first course year subdivided per graduation grade range</p> <p>D1.2_M_5 – Master students enrolled at the first course year subdivided per graduation grade</p> <p>D2 - Students' learning</p> <p>Students' learning</p> <div style="border: 1px solid black; height: 30px; width: 100%; margin-bottom: 10px;"></div> <p>D1.2_1 – Results of the tests for the assessment of the students' learning</p> <p>Further monitoring</p> <p>D3 - Students' studies progression</p> <p>Enrolments at the first course year</p> <div style="border: 1px solid black; height: 30px; width: 100%; margin-bottom: 10px;"></div> <p>D3.1_B – Bachelor enrolments at the different course years</p> <p>D3.1_M - Master enrolments at the different course years</p>		

The list continues on the next page:

TEMPUS DOQUP - Documentation for Quality Assurance of Study Programmes		
Kion University	Language English	Logout

A001 - Biological Engineering

D – MONITORING AND RESULTS

Dropouts

D3.2_B – Bachelor dropouts

D3.2_M – Master dropouts

Credits acquired by the students from one course year to the successive one

D3.3_B – Bachelor credits acquired by the students passing from one course year to the successive one

D3.3_M – Master credits acquired by the students passing from one course year to the successive one

Graduation time

D3.4_B_1 – Bachelor graduates

D3.4_B_2 – Bachelor graduates per graduation grade

D3.4_M_1 – Master graduates

D3.4_M_2 – Master graduates per graduation grade

In the following pages are described the statistic tables :

D1.1_B_1 – Results of the tests for the assessment of the mastery of the admission requirements per grade range

	a.y. 2010	a.y. 2011	a.y. 2012
N. of students with an admission grade between ... and ...			
N. of students with an admission grade between ... and ...			

D1.1_B_2 – Results of the tests for the assessment of the mastery of the admission requirements per grade

	a.y. 2010	a.y. 2011	a.y. 2012
N. of students with an admission grade > ...			
N. of students with an admission grade > ...			

D1.2_B_1 – Bachelor students enrolled at the first course year

	a.y. 2010	a.y. 2011	a.y. 2012
New enrolments			
Provenance from other study programmes			

D1.2_B_2 - Bachelor students enrolled at the first course year subdivided per geographical provenance			
	a.y. 2010	a.y. 2011	a.y. 2012
Residents in the same province			
Residents in the same region			
Foreign students			

D1.2_B_3 - Students enrolled at the first course year subdivided per school of provenance			
	a.y. 2010	a.y. 2011	a.y. 2012
School 1			
School 2			

D1.2_B_4 – Bachelor students enrolled at the first course year subdivided per grade of the school-leaving examination per grade range			
	a.y. 2010	a.y. 2011	a.y. 2012
N. of students with grade of the school-leaving examination between --d			
N. of students with grade of the school-leaving examination between --d			

D1.2_B_5 – Bachelor students enrolled at the first course year subdivided per grade of the school-leaving examination per grade			
	a.y. 2010	a.y. 2011	a.y. 2012
N. of students with grade of the school-leaving examination > ...			
N. of students with grade of the school-leaving examination > ...			

D1.2_M_1 – Master students enrolled at the first course year			
	a.y. 2010	a.y. 2011	a.y. 2012
New enrolments			
Provenance from other study programmes			

D1.2_M_2 - Master students enrolled at the first course year subdivided per geographical provenance			
	a.y. 2010	a.y. 2011	a.y. 2012
Residents in the same province			
Residents in the same region			
Foreign students			

D1.2_M_3 - Master students enrolled at the first course year subdivided per first cycle programme of provenance			
	a.y. 2010	a.y. 2011	a.y. 2012
Study Programme 1			
Study Programme 2			

D1.2_M_4 – Master students enrolled at the first course year subdivided per graduation grade range

	a.y. 2010	a.y. 2011	a.y. 2012
N. of students with graduation grade between ... and ...			
N. of students with graduation grade between ... and ...			

D1.2_M_5 – Master students enrolled at the first course year subdivided per graduation grade

	a.y. 2010	a.y. 2011	a.y. 2012
N. of students with graduation grade > ...			
N. of students with graduation grade > ...			

D1.2_1 – Results of the tests for the assessment of the students' learning

	a.y. 2010				a.y. 2011				a.y. 2012			
	N. of students	N. of students who have	Medium grade	Variance	N. of students	N. of students who have	Medium grade	Variance	N. of students	N. of students who have	Medium grade	Variance
Didactic unit 1												
Didactic unit 2												

D3.1_B – Bachelor enrolments at the different course years			
	a.y. 2010	a.y. 2011	a.y. 2012
N. of students enrolled at the 1 st course year			
Students enrolled at the 2 nd course year holding at the reference cohort			
Total number of students enrolled at the 2 nd course year			
Students enrolled at the 3 rd course year holding at the reference cohort			
Total number of students enrolled at the 3 rd course year			
Students enrolled at the 4 th course year holding at the reference cohort			
Total number of students enrolled at the 4 th course year			
Out-of-course students** holding at the reference cohort			
Total number of out-of-course students			

D3.1_M – Master enrolments at the different course years			
	a.y. 2010	a.y. 2011	a.y. 2012
N. of students enrolled at the 1 st course year			
Students enrolled at the 2 nd course year holding at the reference cohort			
Total number of students enrolled at the 2 nd course year			
Out-of-course students** holding at the reference cohort			
Total number of out-of-course students			

DOQUP	On-line documentation system for quality assurance of study programmes in partner countries	Pagina 33 di 55
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D3.2_B – Bachelor dropouts			
	a.y. 2010	a.y. 2011	a.y. 2012
Dropouts between the 1st and 2 nd course year. Students who have changed study programme in the same University			
Dropouts between the 1st and 2 nd course year. Students who have changed University			
Dropouts between the 2 nd and 3 rd course year. Students who have changed study programme in the same University			
Dropouts between the 2 nd and 3 rd course year. Students who have changed University			
Dropouts between the 3 rd and 4 th course year. Students who have changed study programme in the same University			
Dropouts between the 3 rd and 4 th course year. Students who have changed University			

D3.2_M – Master dropouts			
	a.y. 2010	a.y. 2011	a.y. 2012
Dropouts between the 1st and 2 nd course year. Students who have changed study programme in the same University			
Dropouts between the 1st and 2 nd course year. Students who have changed University			

D3.3_B – Bachelor credits acquired by the students passing from one course year to the successive one			
	a.y. 2010	a.y. 2011	a.y. 2012
Students enrolled at the 2 nd course year holding at the reference cohort. N. of students			
Students enrolled at the 2 nd course year holding at the reference cohort. Median of the acquired credits			
Students enrolled at the 2 nd course year holding at the reference cohort. Medium value of the acquired credits			
Students enrolled at the 2 nd course year holding at the reference cohort. Variance			
Students enrolled at the 3 rd course year holding at the reference cohort. N. of students			
Students enrolled at the 3 rd course year holding at the reference cohort. Median of the acquired credits			
Students enrolled at the 3 rd course year holding at the reference cohort. Medium value of the acquired credits			
Students enrolled at the 3 rd course year holding at the reference cohort. Variance			

The table continues in the next page:

A001 - Biological Engineering

D - RESULTS

Students enrolled at the 4 th course year holding at the reference cohort. N. of students			
Students enrolled at the 4 th course year holding at the reference cohort. Median of the acquired credits			
Students enrolled at the 4 th course year holding at the reference cohort. Medium value of the acquired credits			
Students enrolled at the 4 th course year holding at the reference cohort. Variance			
Out-of-course students holding at the reference cohort. N. of students			
Out-of-course students holding at the reference cohort. Median of the acquired credits			
Out-of-course students holding at the reference cohort. Medium value of the acquired credits			
Out-of-course students holding at the reference cohort. Variance			

D3.3_M – Master credits acquired by the students passing from one course year to the successive one			
	a.y. 2010	a.y. 2011	a.y. 2012
Students enrolled at the 2 nd course year holding at the reference cohort. N. of students			
Students enrolled at the 2 nd course year holding at the reference cohort. Median of the acquired credits			
Students enrolled at the 2 nd course year holding at the reference cohort. Medium value of the acquired credits			
Students enrolled at the 2 nd course year holding at the reference cohort. Variance			
Out-of-course students holding at the reference cohort. N. of students			
Out-of-course students holding at the reference cohort. Median of the acquired credits			
Out-of-course students holding at the reference cohort. Medium value of the acquired credits			
Out-of-course students holding at the reference cohort. Variance			

D3.4_B_1 – Bachelor graduates			
	a.y. 2010	a.y. 2011	a.y. 2012
Graduates holding at the cohort of three previous academic years			
Graduates holding at the cohort of four previous academic years			
Graduates holding at the cohort of five previous academic years			

D3.4_B_2 – Bachelor graduates per graduation grade			
	a.y. 2010	a.y. 2011	a.y. 2012
Graduates with graduation grade \geq ...			
Graduates with graduation grade \geq ...			

D3.4_M_1 – Master graduates			
	a.y. 2010	a.y. 2011	a.y. 2012
Graduates holding at the cohort of a.y. xx-3/xx-2			
Graduates holding at the cohort of a.y. xx-4 / xx-3			
Graduates holding at the cohort of a.y. xx-5 / xx-4			

D3.4_M_2 – Master graduates per graduation grade			
	a.y. 2010	a.y. 2011	a.y. 2012
Graduates with graduation grade \geq ...			
Graduates with graduation grade \geq ...			

TEMPUS DOQUP - Documentation for Quality Assurance of Study Programmes	
Kion University	Language English Logout
A001 - Biological Engineering	
E - MANAGEMENT SYSTEM FOR QUALITY	
D4 - Students' opinion on the educational process	
Students' opinion on the didactic units	<input style="width: 100%; height: 20px;" type="text"/>
Students' opinion on the training periods outside University	<input style="width: 100%; height: 20px;" type="text"/>
Students' opinion on the periods of international mobility	<input style="width: 100%; height: 20px;" type="text"/>
Opinion of the final year students on educational process and support services	<input style="width: 100%; height: 20px;" type="text"/>
D5 - Graduates' placement	
Graduates' job placement	<input style="width: 100%; height: 20px;" type="text"/>
Employed graduates' opinions on the education received and of the employers on	<input style="width: 100%; height: 20px;" type="text"/>
Employers' opinion on the graduates' education (optional) (optional) and of the	<input style="width: 100%; height: 20px;" type="text"/>

2.18.7E – MANAGEMENT SYSTEM FOR QUALITY

The folder contains the requirements about the “Management system for quality”:

- E1 - Internal quality assurance system and of the associated structural organisation
- E2 - Revision and improvement
- E3 - Publicity of information on the study programme

TEMPUS DOQUP - Documentation for Quality Assurance of Study Programmes	
Kion University	Language English Logout
A001 - Biological Engineering	
	E - MANAGEMENT SYSTEM FOR QUALITY
E1 - Internal quality assurance system and organisational structure	
Processes for the SP management and organisational structure	
Positions of responsibilities	
Commitment to the development of a quality culture	
E2 - Revision and improvement	
Management of the revision process	
Results of the revision process	
E3 - Publicity of information on SP	
Publicity of the documentation for the QA of the SP	

3. WEB SERVICE

The monitoring tables of area 'D' cannot be inserted via the GUI (graphic user interface).

Thus DOQUP provides a RESTFUL web service that lets you to retrieve, insert and delete the data about the monitoring tables of area 'D' for a specific study program.

Is up to you the implementation of the client.

The web service contains three operations:

- get monitoring data: returns the data contained in the monitoring table;
- insert monitoring data: inserts the data in the monitoring table;
- delete monitoring data;

3.1 GET MONITORING DATA

The operation returns the data contained in the monitoring table.

Address: <http://doqup-test.kion.it/api/stat/get/{uniCod}/{spCod}/{tableName}>

This url is parametric, composing the parameter you can access to all information needed:

- {uniCod} is the University code, mapped by the table below,

AZ01	Baku State University
AZ02	Khazar University
AZ03	Azerbaijan Medical University
AZ04	Odlar Yurdu University
AZ05	Qafqaz University
KA01	Kazakh Leading Academy of Architecture and Civil Engineering
KA02	Kazakh Ablai Khan University of International Relations and World Languages
KA03	KazNTU N.A. K.I.Satpayev
KA04	Eurasian National University N.A. L. Gumilyov
KY01	Kyrgyz National University N.A. Jussup Balasagyn
KY02	Bishkek Academy of Finance and Economics
KY03	Naryn State University
TA01	Tajik Institute of Entrepreneurship and Services
TA02	Tajik National University
TA03	Technological University of Tajikistan

- {spCod} is the code of the study program to which you are interested,

DOQUP	On-line documentation system for quality assurance of study programmes in partner countries	Pagina 42 di 55
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- {tableName} is the name of the monitoring table:

D1_1_B_1	Results of the tests for the assessment of the mastery of the admission requirements per grade range
D1_1_B_2	Results of the tests for the assessment of the mastery of the admission requirements per grade
D1_2_B_1	Bachelor students enrolled at the first course year
D1_2_B_2	Bachelor students enrolled at the first course year subdivided per geographical provenance
D1_2_B_3	Bachelor students enrolled at the first course year subdivided per school of provenance
D1_2_B_4	Bachelor students enrolled at the first course year subdivided per grade of the school leaving examination per grade range
D1_2_B_5	Bachelor students enrolled at the first course year subdivided per grade of the school leaving examination per grade
D1_2_M_1	Master students enrolled at the first course year
D1_2_M_2	Master students enrolled at the first course year subdivided per geographical provenance
D1_2_M_3	Master students enrolled at the first course year subdivided per first cycle programme of provenance
D1_2_M_4	Master students enrolled at the first course year subdivided per graduation grade range
D1_2_M_5	Master students enrolled at the first course year subdivided per graduation grade
D2_2_1	Results of the tests for the assessment of the student's learning
D3_1_B	Bachelor enrolments at the different course years
D3_1_M	Master enrolments at the different course years
D3_2_B	Bachelor dropouts
D3_2_M	Master dropouts
D3_3_B	Bachelor credits acquired by the students passing from one course year to the successive one
D3_3_M	Master credits acquired by the students passing from one course year to the successive one
D3_4_B_1	Bachelor graduates
D3_4_B_2	Bachelor graduates per graduation grade
D3_4_M_1	Master graduates
D3_4_M_2	Master graduates per graduation grade

An example:

DOQUP	On-line documentation system for quality assurance of study programmes in partner countries	Pagina 43 di 55
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http://127.0.0.1:8888/api/stat/get/AZ01/PROVA-1/D1_2_B_3

This URL returns a JSON object, a response example is:

```
[{
  "rowId":0,
  "row":
  {
    "stuProId":1,
    "shortDes":"Prova",
    "dtIns":1383215205000,
    "stuNum":12314,
    "acadYear":2014,
    "usrIns":"Administrator",
    "schoolId":2,
    "d12B3Id":1
  }
}]
```

3.2 INSERT MONITORING DATA

The operation inserts the data in the monitoring table.

Address: <http://127.0.0.1:8888/api/stat/put/{tableName}>

This URL is parametric in table name (see the list of the table names above).

The request must have a JSON payload.

DOQUP provides the Java library that contains the pre-built structures, one for each monitoring tables. The DoqupWsStruct.jar is available for the download from the DOQUP application.

This inserting function is only for registered users, so, before calling this URL you must authenticate to DOQUP.

Below there is a simple code example to insert one record into the table D1_1_B_1 using Jersey library and Jackson library.

```

import it.kion.doqup.ps.gwt.server.service.ws.struct.D12b3;

import java.util.ArrayList;
import java.util.List;

import javax.ws.rs.core.MediaType;

import org.codehaus.jackson.jaxrs.JacksonJsonProvider;

import com.sun.jersey.api.client.Client;
import com.sun.jersey.api.client.ClientHandlerException;
import com.sun.jersey.api.client.ClientRequest;
import com.sun.jersey.api.client.ClientResponse;
import com.sun.jersey.api.client.WebResource;
import com.sun.jersey.api.client.config.ClientConfig;
import com.sun.jersey.api.client.config.DefaultClientConfig;
import com.sun.jersey.api.client.filter.ClientFilter;
import com.sun.jersey.api.representation.Form;

public class TestClass {

    private static Client pClient = null;
    public static Client getClient(){
        if(pClient==null){
            ClientConfig config = new DefaultClientConfig();
            config.getClasses().add(JacksonJsonProvider.class);
            pClient = Client.create(config);
            pClient.setFollowRedirects(false);

            pClient.addFilter(new ClientFilter() {
                private ArrayList<Object> cookies;
                @Override
                public ClientResponse handle(ClientRequest request) throws
ClientHandlerException {
                    if (cookies != null) {
                        request.getHeaders().put("Cookie", cookies);
                    }
                    ClientResponse response = getNext().handle(request);
                    // copy cookies
                    if (response.getCookies() != null) {
                        if (cookies == null) {
                            cookies = new ArrayList<Object>();
                        }
                        // A simple addAll just for illustration (should probably check for
duplicates and expired cookies)
                        cookies.addAll(response.getCookies());
                    }
                    return response;
                }
            });
        }
        return pClient;
    }

    /**
     * CLIENT SAMPLE
     * @param args
     */
    public static void main(String[] args) {
        TestClass testClass = new TestClass();
        try {

```

```

Client client = TestClass.getClient();

// LOGIN
WebResource webResource =
client.resource("http://doqup.kion.it/j_spring_security_check");
com.sun.jersey.api.representation.Form form = new Form();
form.putSingle("j_username", "Administrator");
form.putSingle("j_password", "Administrator");
form.putSingle("j_domain", "AZ01");
ClientResponse resp =
webResource.type(MediaType.APPLICATION_FORM_URLENCODED_TYPE).post(ClientResponse.class, form);
resp.getStatus();

//
REQUEST
testClass.insertRecord(client);

} catch (Exception e) {
e.printStackTrace();
}
}

private void insertRecord(Client client) {
WebResource webResource;
webResource = client.resource("http://doqup.kion.it/api/stat/put/D1_2_B_3/");
D12b3 s = new D12b3();
s.setSpCod("PROVA-1");
s.setSchoolCod("aaa1");
s.setLangDes("eng");
s.setSchoolDes("WEB SERVICE: scuola di prova");
s.setStuNum(121L);
s.setYear(2014L);
ClientResponse response = webResource.entity(s,
MediaType.APPLICATION_JSON_TYPE).post(ClientResponse.class);
System.out.println("Output from Server ...");
System.out.println("Response: "+response.getStatus()); // Status 200 o 201
System.out.println("Data Count: "+response.getEntity(String.class));
}
}

```

3.3 DELETE MONITORING DATA

The operation deletes one record from the monitoring tables.

Address: <http://127.0.0.1:8888/api/stat/put/rem/{tableName}/{id}/>

The URL is parametric in table name (see the list of the table names above) and in ID (which is a unique identifier) of the record in the table.

This example shows how to delete the record with ID=5 from table D1_1_B_1.

```

private void deleteRecordTable(Client client){
WebResource webResource = client.resource("http://doqup.kion.it/api/stat/rem/D1_1_B_1/5");
ClientResponse response = webResource.delete(ClientResponse.class);
if (response.getStatus() != 200) {

```

```
        throw new RuntimeException("Failed : HTTP error code : " + response.getStatus());
    }
    String output = response.getEntity(String.class);
    System.out.println("Output from Server ....");
    System.out.println(output);
}
```

4. DATA MODELING

This section describes the main entities involved in the documentation for quality assurance of study programmes.

4.1 BASE TABLES

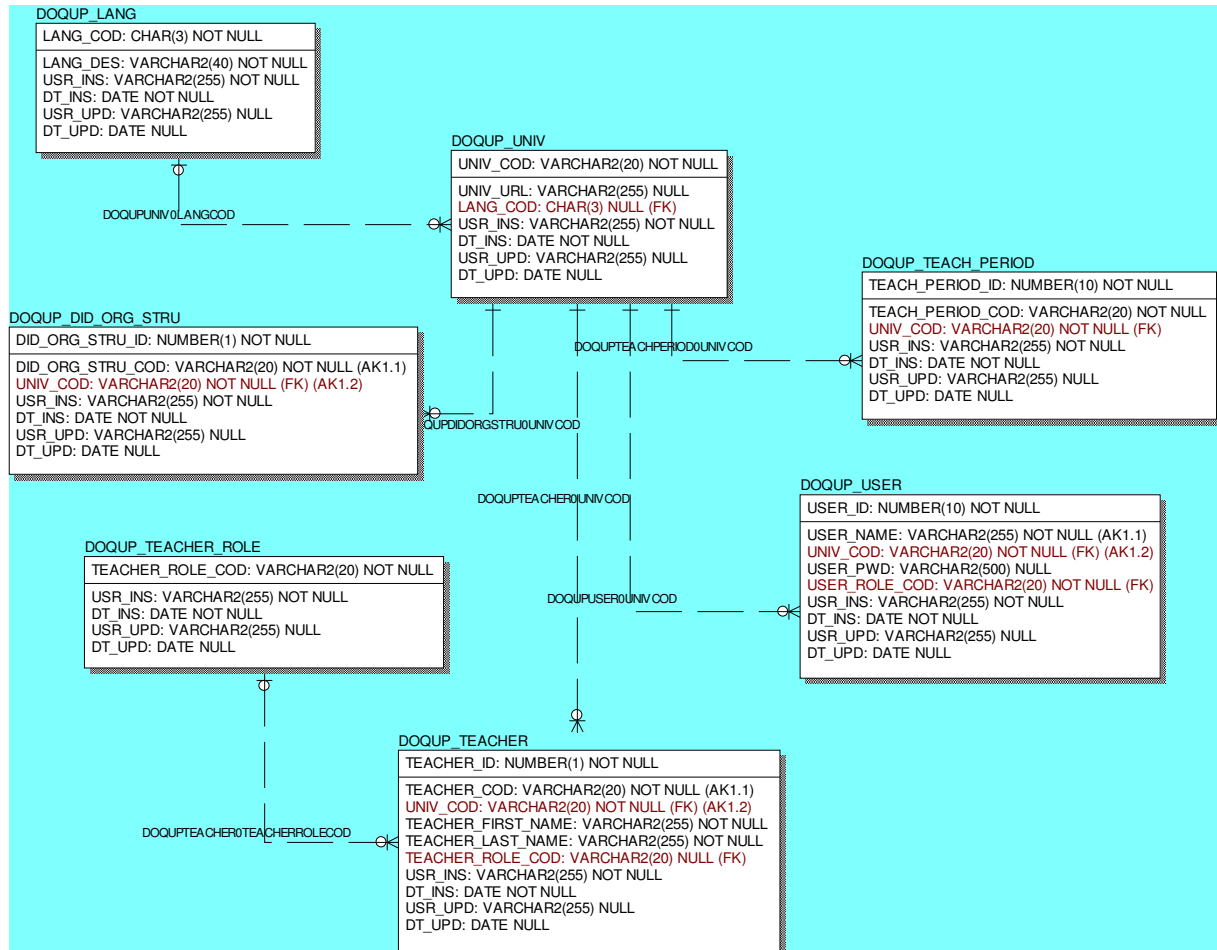
Base tables independent by the University:

<p>DOQUP_ACAD_YEAR</p> <p>ACAD_YEAR: NUMBER(4) NOT NULL</p> <p>USR_INS: VARCHAR2(255) NOT NULL DT_INS: DATE NOT NULL USR_UPD: VARCHAR2(255) NULL DT_UPD: DATE NULL</p>	<p>DOQUP_STU_PRO_TYPE</p> <p>STU_PRO_TYPE_COD: VARCHAR2(20) NOT NULL</p> <p>YEARS_DURATION: NUMBER(3) NULL USR_INS: VARCHAR2(255) NOT NULL DT_INS: DATE NOT NULL USR_UPD: VARCHAR2(255) NULL DT_UPD: DATE NULL</p>
<p>DOQUP_EDU_FORM</p> <p>EDU_FORM_COD: VARCHAR2(20) NOT NULL</p> <p>USR_INS: VARCHAR2(255) NOT NULL DT_INS: DATE NOT NULL USR_UPD: VARCHAR2(255) NULL DT_UPD: DATE NULL</p>	<p>DOQUP_EDU_ACT_TYPE</p> <p>EDU_ACT_TYPE_COD: VARCHAR2(20) NOT NULL</p> <p>USR_INS: VARCHAR2(255) NOT NULL DT_INS: DATE NOT NULL USR_UPD: VARCHAR2(255) NULL DT_UPD: DATE NULL</p>
<p>DOQUP_ASSESS_METHOD</p> <p>ASSESS_METHOD_COD: VARCHAR2(20) NOT NULL</p> <p>USR_INS: VARCHAR2(255) NOT NULL DT_INS: DATE NOT NULL USR_UPD: VARCHAR2(255) NULL DT_UPD: DATE NULL</p>	<p>DOQUP_ASSES_CRITERIA</p> <p>ASSESS_CRITERIA_COD: VARCHAR2(20) NOT NULL</p> <p>USR_INS: VARCHAR2(255) NOT NULL DT_INS: DATE NOT NULL USR_UPD: VARCHAR2(255) NULL DT_UPD: DATE NULL</p>
<p>DOQUP_USER_ROLE</p> <p>USER_ROLE_COD: VARCHAR2(20) NOT NULL</p> <p>USR_INS: VARCHAR2(255) NOT NULL DT_INS: DATE NOT NULL USR_UPD: VARCHAR2(255) NULL DT_UPD: DATE NULL</p>	

Note that the descriptions of the data are not included in the tables but are managed in only one specific

descriptions table.

Base tables dependent by the University:



Note that the descriptions of the data are not included in the table but are managed in only one specific descriptions table.

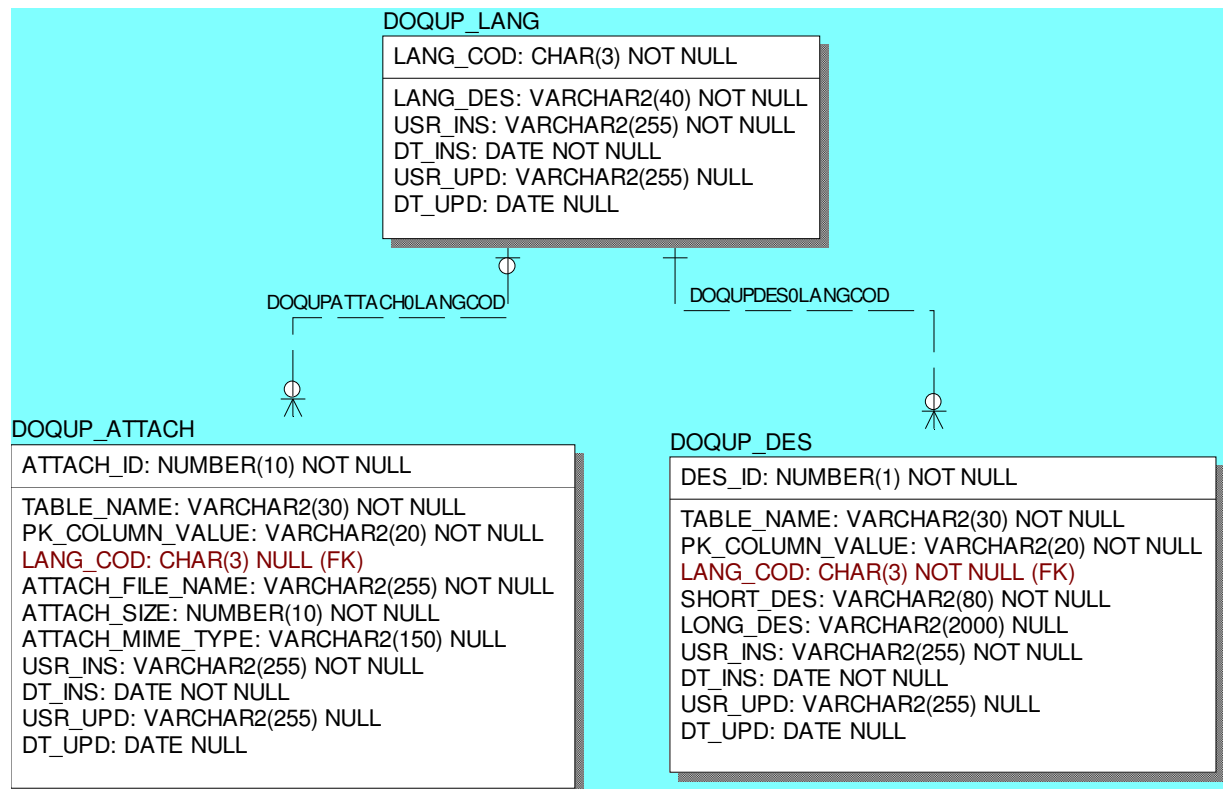
DOQUP	On-line documentation system for quality assurance of study programmes in partner countries	Pagina 50 di 55
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4.2 DESCRIPTIONS AND ATTACHMENTS

The multilanguage descriptions and attachments of all the data are stored in only one centralized entity.

The unique key of the table, that uniquely identifies a description/attachment, is the tuple: language code, table name, Primary key Column Value.

Every record has a short description (up to 80 characters) and, optionally, a long description (up to 2000 characters).



4.3 STANDARDS, REQUIREMENTS AND DOCUMENTATION

This entities contain the standards for the quality assurance and the corresponding requirements:

A - Needs and Objectives

- A1 - Educational needs of the labour market
- A2 - Educational objectives
- A3 - Learning outcomes

B - Educational process

DOQUP	On-line documentation system for quality assurance of study programmes in partner countries	Pagina 51 di 55
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- B1 - Admission requirements
- B2 - Design and planning of the educational process
- B3 - Realization of the educational process

C - Resources

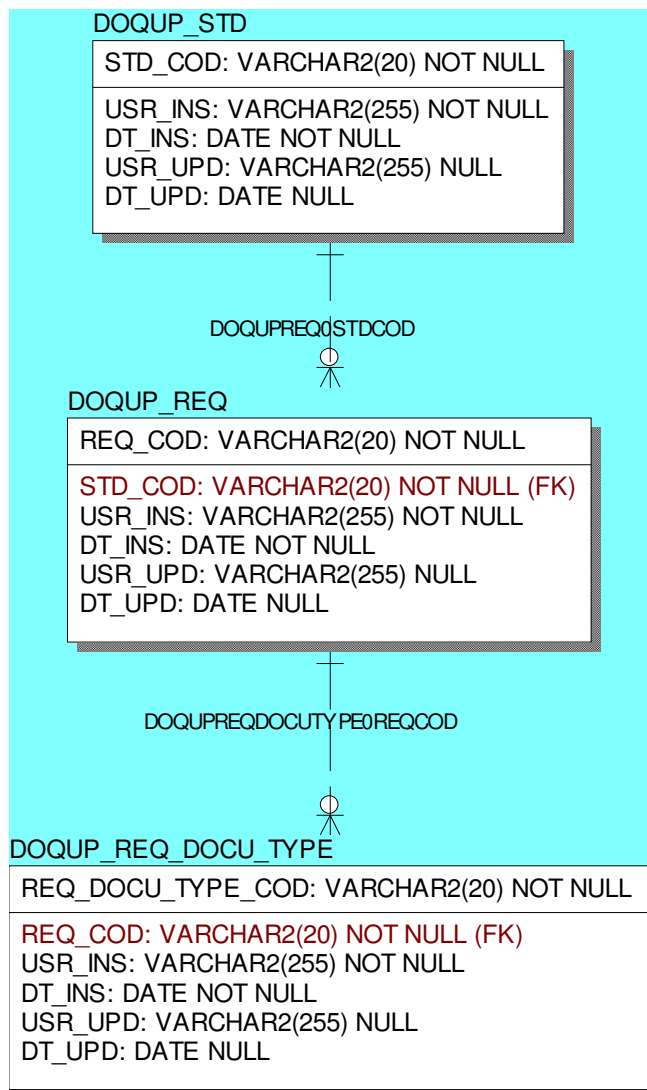
- C1 - Teaching staff
- C2 - Facilities
- C3 - Financial resources
- C4 - Student support services
- C5 - Partnerships

D – Monitoring and Results

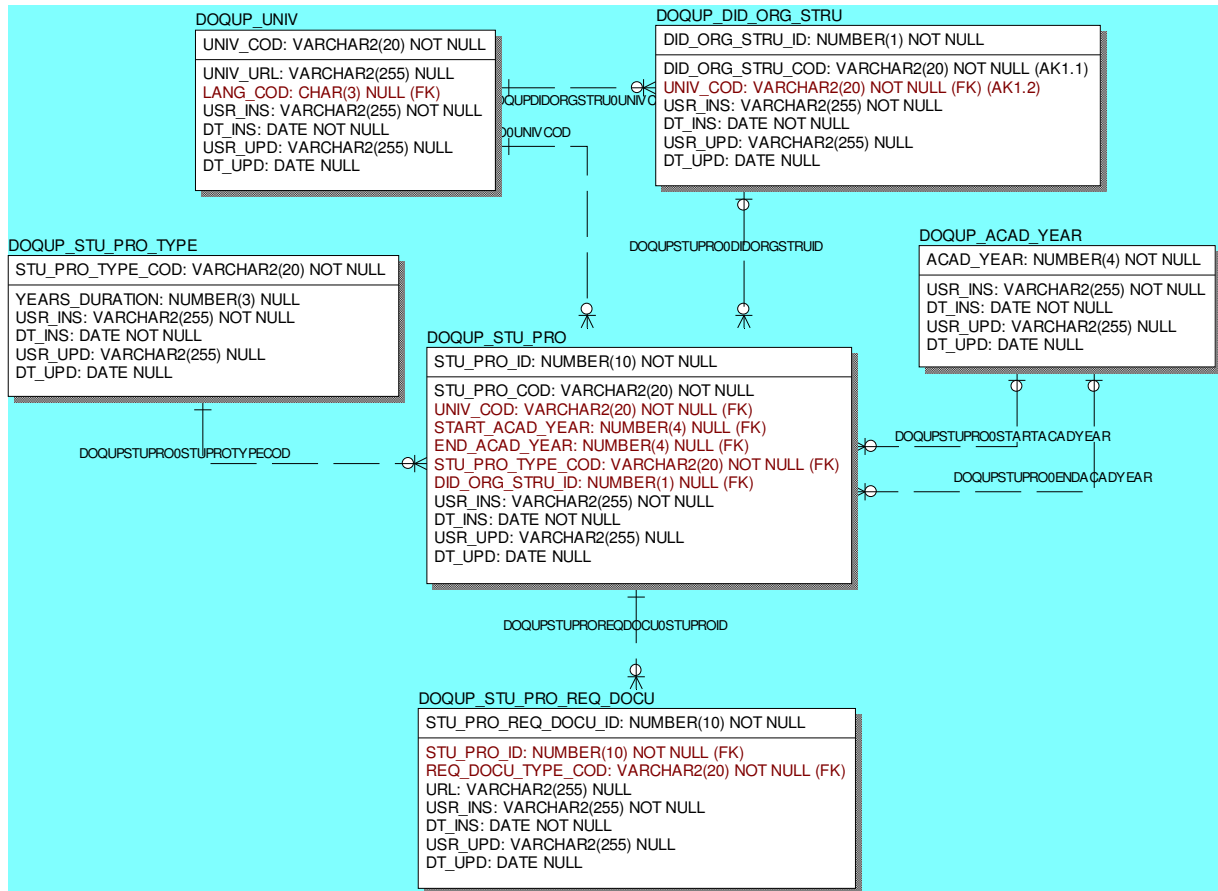
- D1 - Entrance students
- D2 - Students' learning
- D3 - Students' studies progression
- D4 - Students' opinions on the educational process
- D5 - Graduates' placement

E - Management system for quality

- E1 - Internal quality assurance system and organisational structure
- E2 - Revision and improvement
- E3 - Publicity of information on SP



4.4 STUDY PROGRAMMES



4.5 CURRICULUM

