IS MU - PV167 Project

Faculty of Informatics
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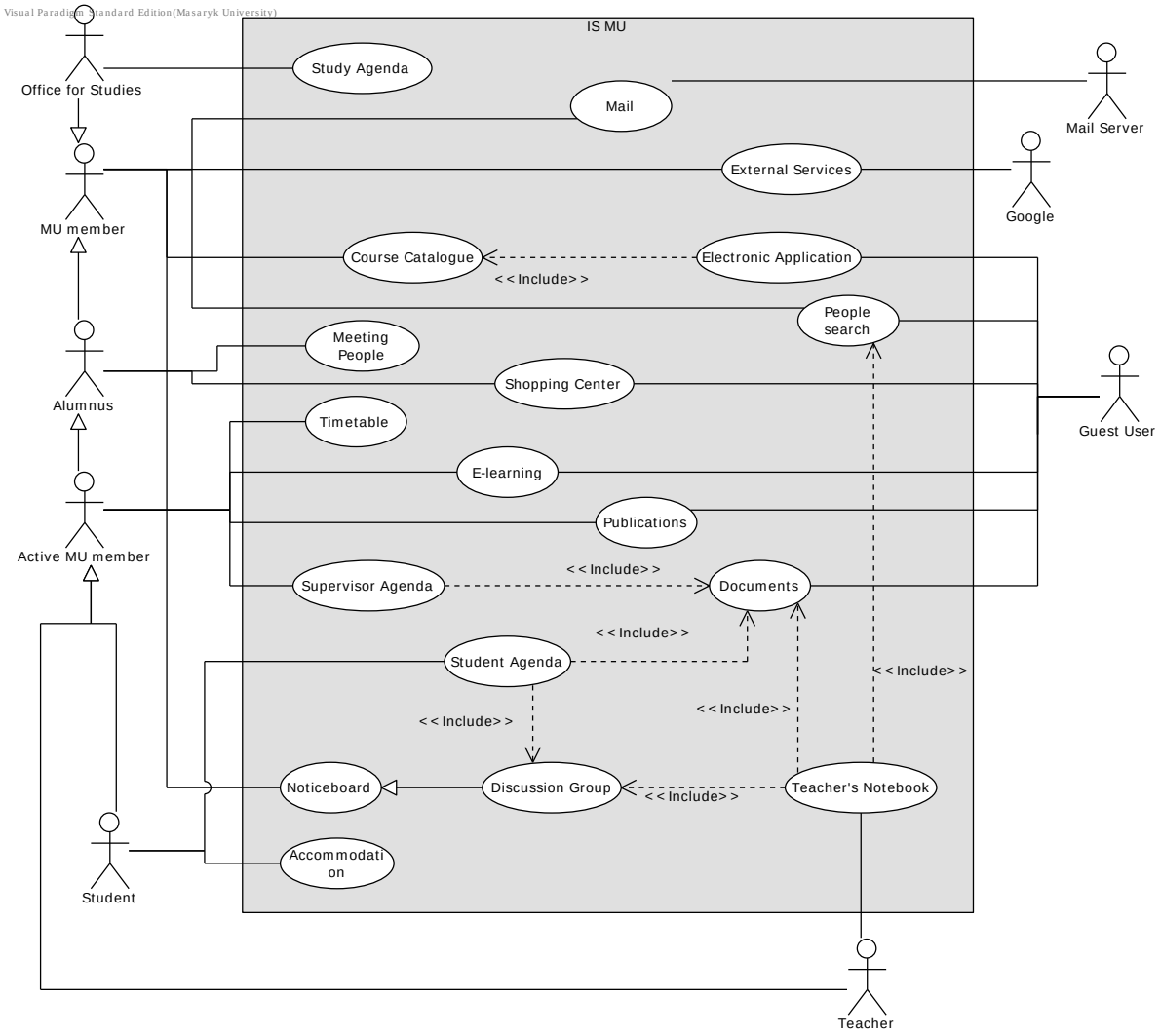
Use Case Diagram

Overview



Summary

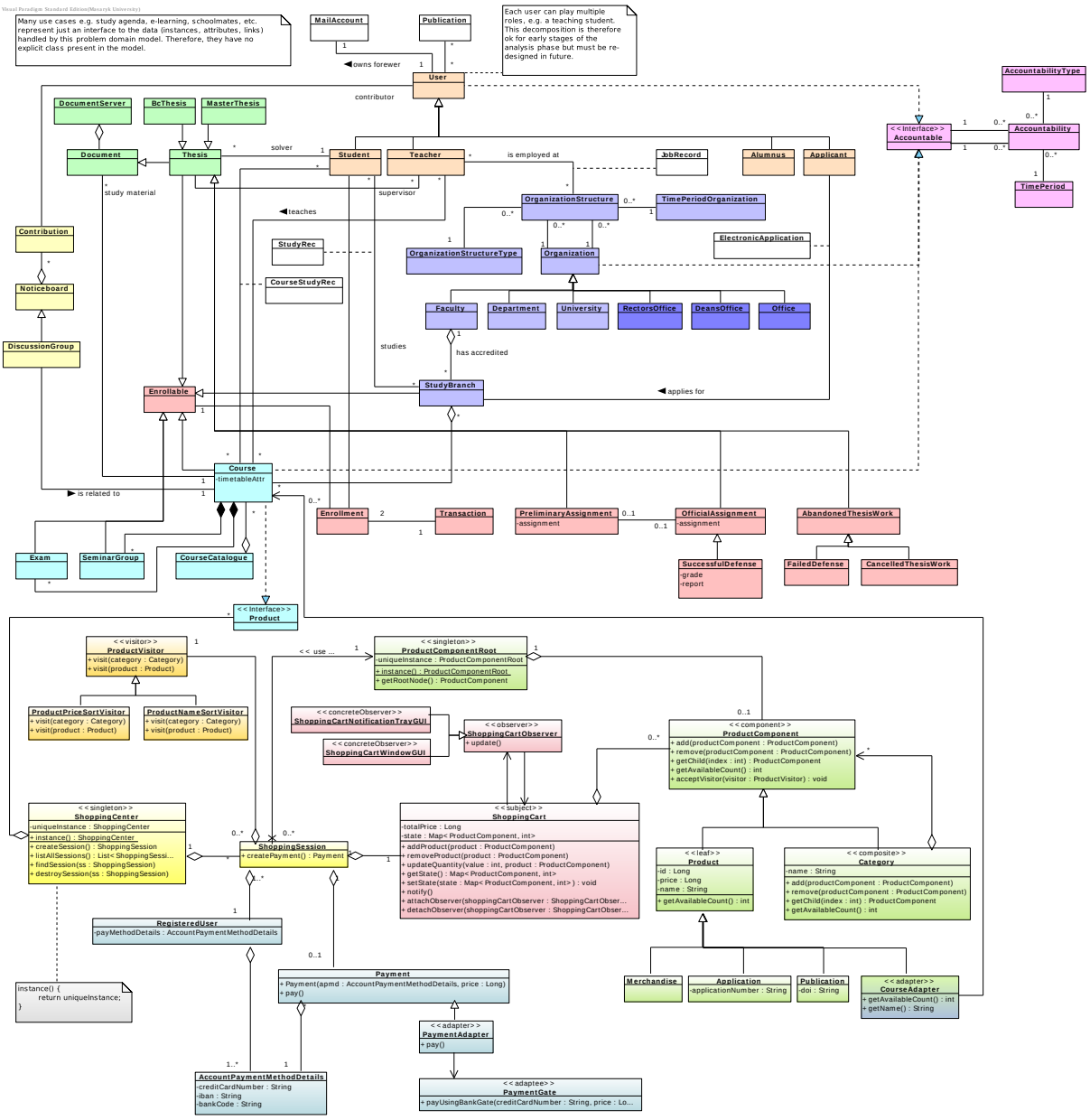
Name	Description
Office for Studies	Employee of the office for studies.
MU member	
Alumnus	Ex-student, e.g. a past student with no active study at MU.
Active MU member	User with active relationship with MU, e.g. active student, internal or external teacher, employee, etc.
Student	Active student, i.e. a student with at least one active study at MU.
Teacher	Internal or external teacher. This role includes PhD students as well.
Google	Currently, this actor covers Google Apps, Google Mail and Google Disk.
Mail Server	SMTP server for sending e-mail. Incoming mails are stored directly in IS MU.

Guest User	Non-authenticated user, e.g. guest users, applicants, etc.
Electronic Application	UC allows non-authenticated users in IS MU to create, manage and submit applications to the university. For already submitted applications it is possible to check the status of the application.
Shopping Center	UC provides a way of purchasing products, services and activities offered by Masaryk University. Items can be searched by categories and purchased via various payment modes.
Accommodation	UC allows management of accommodation in dormitory. It provides choice of dormitory, room and bed, and all of the administrative tasks related to it.
E-learning	UC allows to access e-learning system integrated with IS MU. Users can access study materials and ROPOT exercises. Users with elevated privileges can also modify, add or delete content of e-learning materials.
Meeting People	UC allows to stay in touch with mates from university, even after graduation. It includes many tools to achieve this, e.g. My friends, Groups, Cloud of Interests, etc.
External Services	UC allows to use services from external providers like Google. Users are able to use Google services in association with their IS MU account.
Discussion Group	UC provides space for discussions. Users can add their post and read, rate and reply to posts of others. Discussion groups and threads categorization is available and often related to course of study field.
Noticeboard	UC provides access to important news. Users with elevated privileges are able to manage this news, others are able to read it. News is shown at main page in case it is related to the user.
Documents	UC allows access to documents hosted on IS MU servers. Document server contains directives, reports, administration stuff and so on. It is used for storing official and personal documents as well.
Course Catalogue	UC allows to search and obtain information about all courses. Searching can be performed upon given criteria. Users with elevated privileges are able to manage courses.
Timetable	UC allows users to access their timetable, any public timetables or academic calendar. Timetable is available in different formats and supports previewing of changes.
Student Agenda	UC allows to perform tasks specific for students. It contains access to documents and study materials of courses in which student is enrolled, enrolling in courses, choosing seminar groups, reserve a slot in exam, look for study results in notebook and so on.
Publications	UC provides access to publications related to IS MU. Publications can searched and in case they are free also downloaded.
Supervisor Agenda	UC allows to perform tasks related to supervisor. It mainly includes managing topic list, theses coordination, approving and handling tasks of supervised theses.
Teacher's Notebook	UC allows to manage information related to teachers. It contains work with courses and enrolled students, their attendance, exams and grades.

Study Agenda	UC allows management of study agenda. It includes access to information about studies of students, course details, managing study fields, managing absences, etc.
People search	UC provides a possibility to search IS MU users by their name or surname. Advanced search options are also available.
Mail	UC allows users to communicate with mail server. It provides common e-mail functionality like send or receive e-mail messages via mail.muni.cz domain.
IS MU	IS MU refers to Masaryk University Information System. This use case model represents the top-level overview to the most important modules of IS MU.

Class Diagram

Problem Domain Model



Summary

Name	Description
MailAccount	
Publication	
AccountabilityType	
User	
DocumentServer	
BcThesis	
MasterThesis	

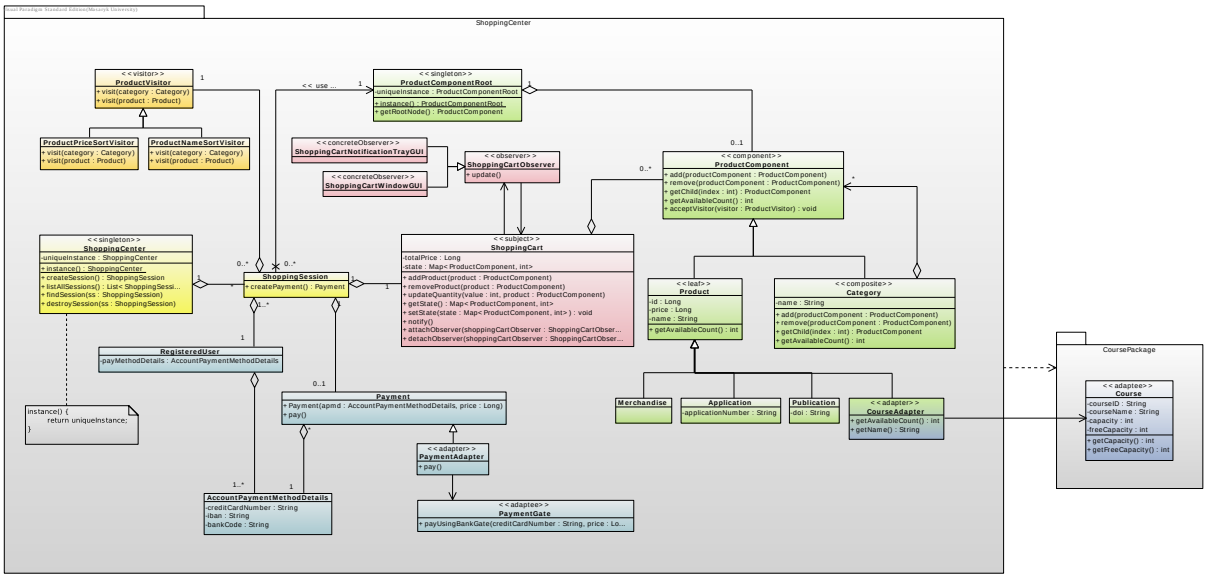
Accountable	
Accountability	
Document	
Thesis	
Student	
Teacher	
JobRecord	
Alumnus	
Applicant	
TimePeriod	
OrganizationStructure	
TimePeriodOrganization	
Contribution	
ElectronicApplication	
StudyRec	
OrganizationStructureType	
Organization	
CourseStudyRec	
Noticeboard	
Faculty	
Department	
University	
RectorsOffice	
DeansOffice	
Office	
DiscussionGroup	
StudyBranch	
Enrollable	
Course	
Enrollment	
Transaction	
PreliminaryAssignment	
OfficialAssignment	
AbandonedThesisWork	
Exam	
SeminarGroup	
CourseCatalogue	
SuccessfulDefense	
FailedDefense	
CancelledThesisWork	
Product	
ProductVisitor	
ProductComponentRoot	

ProductPriceSortVisitor	
ProductNameSortVisitor	
ShoppingCartNotificationTrayGUI	
ShoppingCartObserver	
ProductComponent	
ShoppingCartWindowGUI	
ShoppingCenter	
ShoppingCart	
ShoppingSession	
Product	
Category	
RegisteredUser	
Payment	
Merchandise	
Application	
Publication	
CourseAdapter	
PaymentAdapter	
AccountPaymentMethodDetails	
PaymentGate	
N/A	Each user can play multiple roles, e.g. a teaching student. This decomposition is therefore ok for early stages of the analysis phase but must be re-designed in future.
N/A	Many use cases e.g. study agenda, e-learning, schoolmates, etc. represent just an interface to the data (instances, attributes, links) handled by this problem domain model. Therefore, they have no explicit class present in the model.

N/A	instance() {
	return uniqueInstance;
	}

Class Diagram

ShoppingCenter



Summary

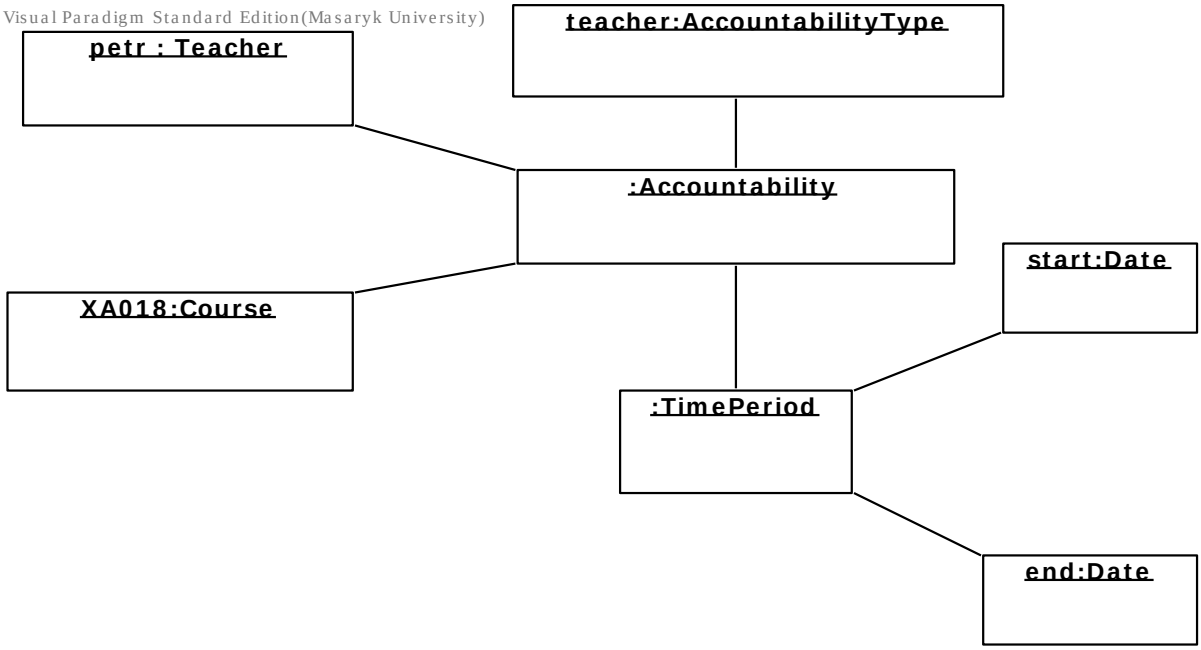
Name	Description
ShoppingCenter	
ProductVisitor	
ProductComponentRoot	
ProductPriceSortVisitor	
ProductNameSortVisitor	
ShoppingCartNotificationTrayGUI	
ShoppingCartObserver	
ProductComponent	
ShoppingCartWindowGUI	
ShoppingCenter	
ShoppingCart	
ShoppingSession	
Product	
Category	
CoursePackage	
RegisteredUser	
Course	
Payment	
Merchandise	
Application	
Publication	
CourseAdapter	
PaymentAdapter	

AccountPaymentMethodDetails	
PaymentGate	

N/A	instance() {
	return uniqueInstance;
	}

Object Diagram

Accountability

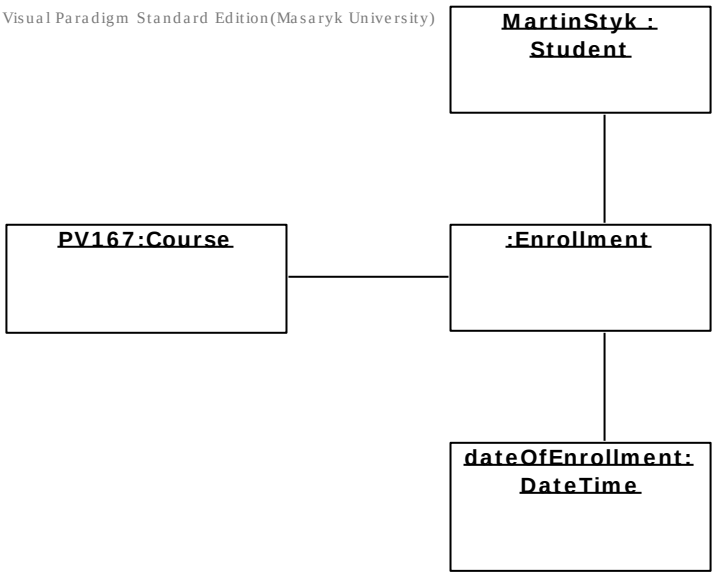


Summary

Name	Description
teacher:AccountabilityType	
petr	
:Accountability	
start:Date	
XA018:Course	
:TimePeriod	
end:Date	

Object Diagram

Enrollment

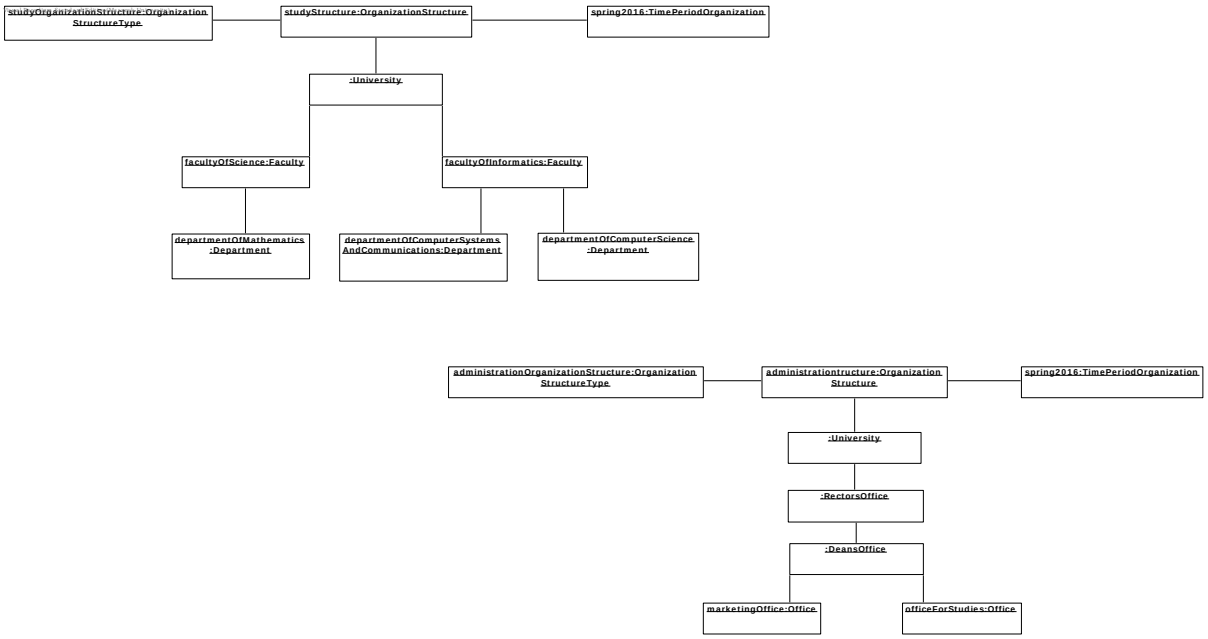


Summary

Name	Description
MartinStyk	
PV167:Course	
:Enrollment	
dateOfEnrollment:DateTime	

Object Diagram

Structure



Summary

Name	Description
studyOrganizationStructure:OrganizationStructureType	
studyStructure:OrganizationStructure	
spring2016:TimePeriodOrganization	
:University	
facultyOfScience:Faculty	
facultyOfInformatics:Faculty	
departmentOfComputerScience:Department	
departmentOfMathematics:Department	
departmentOfComputerSystemsAndCommunications:Department	
administrationOrganizationStructure:OrganizationStructureType	
administrationtructure:OrganizationStructure	
spring2016:TimePeriodOrganization	
:University	
:RectorsOffice	
:DeansOffice	
marketingOffice:Office	
officeForStudies:Office	