

FACULTY OF COMPUTERS, INFORMATICS AND MICROELECTRONICS

TECHNICAL UNIVERSITY OF MOLDOVA

ANALYSIS OF OBJECT-ORIENTED MODELING

LABORATORY WORK #1

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**Project description. User Story. Entities and Relations.**

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## **Laboratory work #1**

### **1 Tasks**

- Describe your project (at least 1/2 A4 paper);
- Give several user stories.

### **2 Theory**

#### **2.1 Types of entities**

##### a) Structure

- 1) Class
- 2) Interface
- 3) Use case
- 4) Collaboration
- 5) Active class
- 6) Component
- 7) Node

##### b) Behaviour

- 1) Interaction
- 2) Automate

##### c) Grouping (package)

##### d) Adnotation (note)

#### **2.2 Types of relations**

##### a) Dependence

##### b) Asociation

- 1) Agregation
- 2) Composition

##### c) Generalization

##### d) Realization

### 3 Description of the project

The new **St. Courses** platform is a great place to learn new skills and boost your knowledge. It provides a web based interaction between students and teachers. Because of it's simplicity and security, it can be used by schools and universities. On St. Courses, the user gets personalized help in order to customize his online classes. The website is very user-friendly, engaging and easy to use. It also has a customizable front-end, advanced analytics and much more.

The platform is populated by 3 kinds of actors: administrators, teachers and students.

**Courses:** A course has a title, description and content. It is placed in time by the start date and end date. It is created by a teacher and can have enroled students. The content is structured in chapters and can contain text, images and interactive elements. Every teacher who logged in can create and edit a course. To delete it, he must complete a request to an administrator, containing the cause of removal.

**Tests:** The teacher optionally can create a test to evaluate the quality of the course. For this he must fill in the questions, provide the coorect answers and create an grading system. For the student, a test is obligatory. At the end of the course the students get marks based on their activity.

**Feedback/Reporting:** Both teachers and students can give feedback which will be assigned to the course history. Also, they can report bad behaviour / inappropriate language / fake content, etc. Each reportmust be resolved by an administrator.

**Enrolment to a course:** The courses are free, meaning that everyone with an account can enrol to any corse. However, there are recomended courses, based on age, fields of interest, difficulty level. A student can lose access to a course if he unenroled himself, or the teacher removed him. In both cases the student loses the progress, tests, marks gained in that course.

**Invitations:** A teacher can send invitations to a course. The invited students will be enroled automatically. With this method the teacher can assemble an real-life grop and assure access to the course for them.

#### I. 3.0 User stories:

- An administrator (moderator) is responsible for handling reports, removal of inapropriate content, offering technical support.
- A teacher can create a new course, edit an existing one, approve or reject an student to a course, create tests.
- A student can enrol to a course, read the material, unenrol from a course, pass a test, give feedback.