# FACULTY OF COMPUTERS, INFORMATICS AND MICROELECTRONICS TECHNICAL UNIVERSITY OF MOLDOVA

# Object-Oriented Modeling and Analysis Laboratory work #7

Modeling your project with Activity Diagrams. Application delivery. Software life-cycle.

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### Laboratory work #7

#### 1 Tasks

- Model your application using 3 Activity Diagrams;
- Document the Application Delivery / Installation.

#### 2 Theory

#### 2.1 Software Development Process

In software engineering, a software development process is the process of dividing software development work into distinct phases to improve design, product management, and project management. It is also known as a software development life cycle. The methodology may include the pre-definition of specific deliverables and artifacts that are created and completed by a project team to develop or maintain an application.

Most modern development processes can be vaguely described as agile. Other methodologies include waterfall, prototyping, iterative and incremental development, spiral development, rapid application development, and extreme programming.

Some people consider a life-cycle "model" a more general term for a category of methodologies and a software development "process" a more specific term to refer to a specific process chosen by a specific organization. For example, there are many specific software development processes that fit the spiral life-cycle model. The field is often considered a subset of the systems development life cycle.

# 3 Activity Diagrams

In Figure 3.1 is represented the activity diagram for user login.

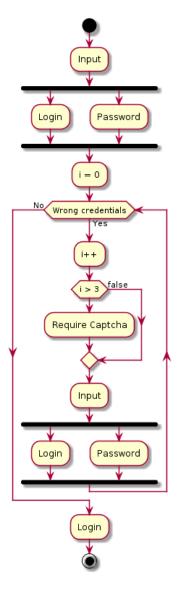


Figure 3.1 – Login activity diagram

To login in an account, the user inputs login and password in any order. Then the input is submitted. If the credentials are right, the user is authenticated successfully. Otherwise, it should try again. If the third attempt is unsuccessful, he is requested to pass the captcha test. Any attempt from that moment will require the additional test, until he inputs correct data.

# 4 Application Delivery / Installation

The last step of website development is deployment. The process of "getting your website on the web" consists of a number of steps:

- Finding a domain name
- Finding a hosting service

- Uploading files with SFTP
- Deploying server-side applications

But the client is not required to download or install anything. He simply navigates to the webpage. The only step he should take is to create an account.

# 5 Conclusion

In this laboratory work we learned to create activity diagrams and explain Application Delivery / Installation.