Introduction to Programming I

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Faculty of Mathematics, Natural Sciences and Information Technologies
(UP FAMNIT)

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Basics

- Lecturers: Aleksandar Tošić and Jernej Vičič
- E-mails: aleksandar.tosic@upr.si, jernej.vicic@upr.si
- Assistant: Sead Jahić
- E-mail: sead.jahic@famnit.upr.si
- e-učilnica
- o correspondence list: Bla bla on e-učilnica
- One semester course
- During 14 weeks
- Evaluation according to ECTS: 6 ECTS
- Importante dates will be, on time, on e-učilnica

The aim



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- getting to know the basics of problem solving
- getting acquainted with basic concepts and techniques programming
- Getting to know basic data structures
- learn to express the process in the programming language
- Knowledge with object oriented programming
- Getting acquainted with abstractions in programming languages

Literature

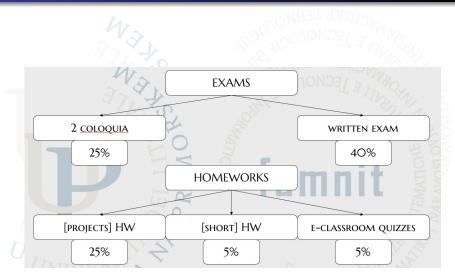
- Primary:
 - Slides from lab.sessions and from lectures by professor
 - JAVA tutorial: http://docs.oracle.com/javase/tutorial/java/index.html
- Secondary:
 - Paul Vickers: How To Think Like A Programmer:
 Problem-solving for the Bewildered. Course Technology, 2008.
 - Paul Vickers: How To Think Like A Programmer: Program
 Design Solutions for the Bewildered. Course Technology, 2009.
 - Joyce Farrell: Programming Logic and Design. Course Technology, 2008.
 - Viljan Mahnič, Luka Fürst, Igor Rožanc: JAVA skozi primere, Bi-TIM.



Literature

- Additional literature:
 - Michael T. Goodrich, Roberto Tamassia: Data Structures and Algorithms in Java, John Wiley & Sons, 2006, 4. publish.
 - John C. Mitchell: Concepts in Programming Languages, Cambridge Univ. Press, 2003.
 - Herbert Schildt: Java 2: the complete reference, Berkeley, Osborne/McGraw-Hill, 2001.
 - Thomas H. Cormen, et al.: *Introduction to Algorithms*, 2. publish, MIT Press, 2001.

Evaluation and Grading



Grading, follows

[PROJECTS] HW			
25%	ORAL defense Written part	Project 1 50% 50%	Project 2 50% 50%
	MINIMUM	AVERAGE:	20/100
Quizzes 5%	MINIMUM		-
[short] HW 5%	MINIMUM		75/100
COLLOQUIUM 25%		IOO%	2 ND COLLOQUIUM IOO%
	MINIMUM	40/100	40/100
WRITTEN EXAM			40/100

Definition

Computer programming (often simply programming) is the craft of implementing one or more interrelated abstract algorithms using a particular programming language to produce a concrete computer program. Programming has elements of art, science, mathematics, and engineering. Resource: en.wikipedia.org/wiki/ProgramMing

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e-classroom, ECLIPSE, IDEA (education, community)

Kategorije predmetov

POMOČ UPORABNIKOM / HELP FOR USERS (2)

- ▼ Študijsko leto 2022/2023
 - Računalništvo in informatika (1. stopnja, 2. stopnja, 3. stopnja)
 - ▼ Računalništvo in informatika, angleška izvedba (1. stopnja)
 - ▼ 1.stopnja
 - 1.letnik (10)
 - 2.letnik (12)
 - 3.letnik (13)

Programiranje I EN 22/23 ◆

Izvajalec: Sead Jahić Izvajalec: Aleksandar Tošić

Izvajalec: Jernej Vičič

Create project/file, Scanner

Syntax of the **scanner** as:

Example

In Math, to count area of triangle you are able to use Heron's formula:

$$P = \sqrt{s(s-a)(s-b)(s-c)}, s = \frac{a+b+c}{2}$$

- Give a user opportunity to insert three numbers (a, b, c) as sides of triangle. (make sure that sum of two sides must be greater of third side in triangle)
- count and print area of the triangle

Don't use if-statements!

