INF1511
Visual Programming I

MODULE OVERVIEW

Define tomorrow.

UNISA | college of science, engineering and technology

What is programming?

- Problem solving.
- A problem.
- A system. Input, process and output.

- Apply Programming principles! ***
- Use a Programming language …. Python

Overview of INF1511 2024

- **Eight** (8) module units.
- Logistics of the module.
- **Formative** self-assessment – Each unit MCQ **Theory**
- **Formative** practical-assessment – Each unit **practical** worksheets as discussed during a unit discussion session. See Unit Folder.
- **Formative** assignment assessment – Each unit practical assignments. ONE attempt.
- **Summative** assessment – MCQ Timed Online based on practical examples. 5 Theory + 10 Practical MCQ

The Module Focus of INF1511

- This module focus is the exploration of the **programming principles** using the **Python** programming language.

- The learning environment is ANACONDA using Jupyter Notebook (Unit 1).
- The theoretical and practical approach to teaching and learning.

The 8 Module Units

Environment· operation:· Describe· the· programming· concepts· for· computing·including·performing·arithmetic·operations.¤
.¤
Decisions:· Implement· decision· using· the· if-else· statement· and· typical·programming·structures¤
¤
Looping:· Implement· iteration· using· loops· (FOR· and· WHILE),· and· typical·programming·structures.¤
¤
Strings:· Implement·sequences·using·lists,·strings,·tuples·and·array· structures·and·programming·methods.¤
Functions·procedures:·Apply·the·writing·and·calling·of·general·sub· procedures·and·function·procedures.¤
¤
Classes:· Implement· the· use· of· classes· and· operators· and· the· required·programming·methods.¤
File· handling:· Implement· file· handling· and· the· relevant· exception· handling·and·the·required·programming·methods.¤
¤
GUI:·Compile·a·GUI·application·using·implement·basic·widgets·and· the· required· programming· methods· for· a· visual· programming· application.¤

The Module Logistics

- Unit starts with a specified **MONDAY** discussion on MS Teams.
- Recording will be available on unit folder.
- Presentation of learning objectives.
- Practical are available as Jupyter notebook and PDF documents.
- Unit **self-assessment** theory MCQ available (randomly selected questions from pool).
- Unit practical exercises and then assignment part (based on practical exercises)

Formative Practical Assessment

- MCQ based on Practical Exercises
- Assignment 1 - Unit 1
- Assignment 2 - Unit 2
- Assignment 3 - Unit 3
- …..
- Assignment 8 - Unit 8

Summative Assessment EXAM Oct/Nov

- 30 MCQ random selected questions.
- Selected from 16 question pools (8 units – each a theory and a practical POOL)
- Linear, myExams, 1 hour.
- With IRIS proctoring.

- 3 questions per unit (theory, practical & application).
- 6 ad hoc related questions.

Assessment Plan – NO EXTENSIONS

Assessment Plan

ASSESSMENT INFORMATION

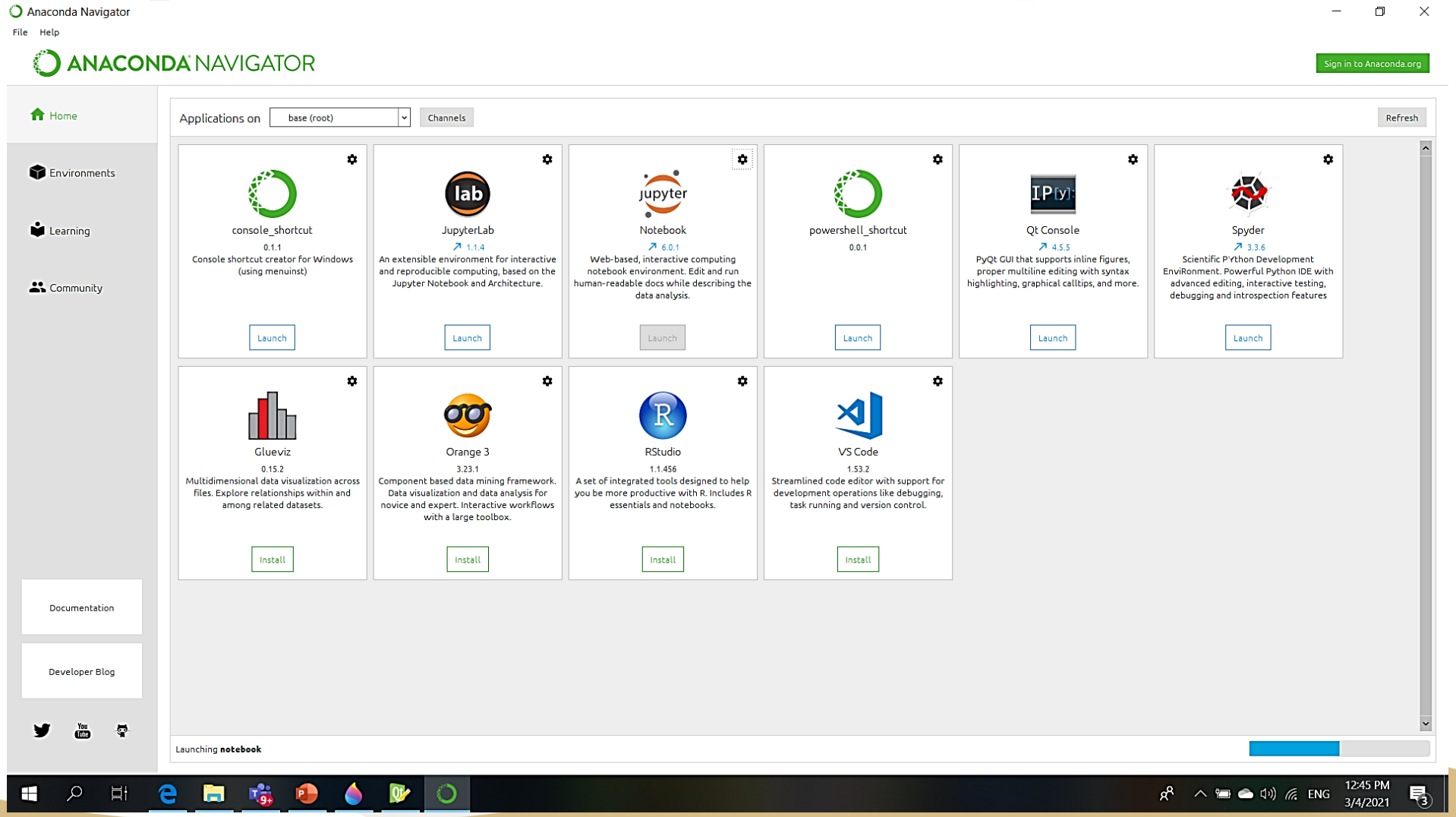
Click on edit next to the assessment number to edit assessment details.

Formative Assessments										
General					Year Mark					
Ass. Nr.	Format	Unique Nr.	Due Date	Opening Date	Type	Opt.	Normal weight	Repeat weight	Aegrotat weight	Remove?
1 Edit	Quiz	536161	20240517 09:00	20240318 08:00	Individual	M	10	10	10	☐
2 Edit	Quiz	536173	20240923 09:00	20240408 08:00	Individual	M	15	15	15	☐
3 Edit	Quiz	536319	20240923 09:00	20240429 08:00	Individual	M	15	15	15	☐
4 Edit	Quiz	743913	20240923 09:00	20240520 08:00	Individual	M	10	10	10	☐
5 Edit	Quiz	743971	20240923 09:00	20240610 08:00	Individual	M	10	10	10	☐
6 Edit	Quiz	744040	20240923 09:00	20240708 08:00	Individual	M	10	10	10	☐
7 Edit	Quiz	744320	20240923 09:00	20240729 08:00	Individual	M	10	10	10	☐
8 Edit	Quiz	807325	20240923 09:00	20240819 08:00	Individual	M	20	20	20	☐

Additional Resources

- Free e-resources and additional textbooks.
- Online discussions selected Tuesdays.
- E-tutors for groups of students.
- Practical examples for self-assessment.

ANACONDA Jupyter Notebook



Thank you