

**Learning Outcomes:**

On conclusion students should be able to:

LO1: Explain Java Programming language and oops concepts (C2, PLO1)

LO2: Build a moderate to advanced stand-alone GUI applications using java concepts (C3,PL02)

LO3: Demonstrate the use of java concepts and their functionalities in the existing system (A3,PL05)

**Programme Outcomes (PO):**

PLO1: Gain and apply computing & technology knowledge for IT applications

PLO2: Demonstrate logical and analytical thinking skills to develop innovative software solutions for various applications

PLO5: Communicate effectively and professionally with peers, clients, superiors and society at large both in written and spoken form.

No.	Learning Outcome	Assessment
1	Explain Java Programming language and oops concepts (C2,PLO1)	Final Exam
2	Build a moderate to advanced stand-alone GUI applications using java concepts (C3,PL02)	Assignment
3	Demonstrate the use of java concepts and their functionalities in the existing system (A3,PL05)	Assignment

**Title**

APU Supervision Management System

**Section A: Program Specification**

The assignment requires students to develop a Supervision Management System for Asia Pacific University Innovation & Technology (APU). The target users of the system are **student**, **supervisor**, **faculty admin**, and **system admin**. The expected system must be able to perform some mandatory operations such as **user registration**, and **appointment management**.

Construct a software solution using **object-oriented approach** and all the data must be saved in **text file**. Furthermore, a supporting document is required to reflect the implementation details demonstrating the implementation of different object-oriented concepts with code samples.

The developed system should achieve the following requirements but not limited to:

Role	Requirements
Student	<ul style="list-style-type: none"><li>• View assigned supervisor</li><li>• Make, reschedule or cancel appointment</li><li>• View appointment status (pending/approved/rejected)</li><li>• View supervisor's feedback</li></ul>
Supervisor	<ul style="list-style-type: none"><li>• View list of assigned students</li><li>• Upload available timeslot for appointment</li><li>• Approve or reject appointment requests</li><li>• Add or view feedback for each student</li></ul>
Faculty Admin	<ul style="list-style-type: none"><li>• Assign or reassign supervisors to students</li><li>• View supervisor-student assignment list</li><li>• Search or filter by intake or program</li><li>• Generate reports (students per intake, per supervisor, etc)</li></ul>
System Admin	<ul style="list-style-type: none"><li>• View list of all users and their roles</li><li>• Manager user roles and accounts (create/edit/delete)</li><li>• Monitor failed login attempts</li><li>• Reset user passwords</li></ul>

Besides, the following characteristics are important to be included in your system:

- The system should be running continuously unless an exit command is issued
- The system should have a user-friendly GUI that allows interaction between user and the system
- The system should have login page for different users
- The system should validate user input to avoid logical errors
- All details must be saved in text files

## Section B: Deliverables

This is a group assignment. Each group with no more than **4 (FOUR) members** is required to submit:

1. A softcopy of the program coded in Java – submitted online on Moodle. The program should include the following:
  - Basic Java concepts such as displaying and reading of text, variables, and assignment of values, comments – to explain various parts of the program, selection control and iteration structures, and arrays – single/double scripted.
  - Object-oriented concepts incorporated using Java such as definition of classes, creation of objects / arrays of objects, constructors, method overloading, method overriding, etc.
  - Any other aspects of Java.
2. A documentation of the system, that incorporates basic documentation standards such as header and footer, page numbering, and which includes:
  - Cover page
  - Table of contents
  - Sample outputs when the program is executed with some explanation of the outputs/sections of the program
  - OO concepts with Sample code for explanation and Java features used in your system.
  - Additional features which have been incorporated in the solution in terms of Java codes
  - All references must be made using APA referencing Convention.

**The documentation along with the project files should be submitted on Moodle Folder.**

Submission deadline: **26<sup>th</sup> October 2025, 11:59:00 PM**

## Section C: Component Weighting

Program Listing [C3, PLO2] : 35/60

Program Documentation [C3, PLO2] : 15/60

Presentation [A3, PLO5] : 10/60

***Plagiarism is a serious offence and will be dealt with according to APIIT and Staffordshire University regulations on plagiarism.***

## Section D: Performance Criteria

### Distinction

- This grade will be assigned to work which solution meets more than 75% of the basic requirements.
- The program should compile and run with no errors.
- Clear evidence of appropriate usage of Java advance concepts. Work at this level has to show appropriate use of basic programming concepts with appropriate use of features not presented in class.
- Program must be a unique solution.
- All documentation requirements must be met professionally with referencing done appropriately.
- During presentation, the student should be able to open and execute the program. Student should also be able to demonstrate and rationalize the need for certain codes. Also be able to answer the questions correctly with detailed explanation.

### Credit

- This grade will be assigned to work which solution meets more than 65% of the basic requirements.
- The program should compile and run with no errors.
- Clear evidence of appropriate usage of basic programming concepts such as looping, control structure, and array.
- Program must be a unique solution.
- All basic documentation requirements met. Referencing was done but with errors.
- During presentation, the student should be able to open and execute the program. Student should also be able to explain most of the work produced. Also be able to answer the questions correctly.

### Pass

- This grade will be assigned to work which is considered to be of average standard and which meets more than 50% of the basic requirements listed above.
- The program should compile with no errors or run when executed but with some errors.
- Work at this level must provide clear evidence of appropriate usage of basic programming concepts such as looping, control structure, and arrays.
- Referencing was done but with errors.
- During presentation, the student should be able to open and execute the program. Student should also be able to explain the work produced. Also be able to answer most questions correctly.

**Marginal Fail**

- Work at this level will generally be of low standard where it may even fail to meet less than 50% of the basic requirements listed above.
- The program should compile with no errors and run when executed but with some major errors.
- Work at this level must provide clear evidence of some usage of basic programming concepts such as looping, control structure, and arrays.
- No referencing was done.
- During presentation, the student should be able to open and execute the program. Student barely able to explain the work produced and could not answer most questions correctly.

**Fail**

- Work at this level will generally be of low standard where it may even fail to meet less than 40% of the basic requirements listed above.
- The program does not compile and/or run when executed but with some major errors.
- Work at this level must show at least little usage of basic programming concepts such as looping, control structure, and arrays.
- Barely any documentation done.
- During presentation, the student not able to open and execute the program. Student also not able to explain the work produced and could not answer any of the questions asked.