



UNIVERSITY OF SRI JAYEWARDENEPURA

Faculty of Technology

Bachelor of Information and Communication Technology Honours Degree

First Year Second Semester

IIC 1153 - Object Oriented Programming

Group Assignment

You are required to collaborate with a local startup company by visiting or having a discussion, identify a problem they are currently struggling to solve, and design a Java-based software solution using sound OOP design principles.

Main objectives of this project are,

- Apply OOP concepts in designing and implementing real-world Java applications.
- Analyze and understand a practical business or operational problem faced by a startup company.
- Demonstrate teamwork, communication, and project management skills in software development.
- Apply exception handling techniques, best practices to build robust, error-tolerant applications.
- Use Version Control Systems (Git/GitHub) effectively to manage source code, track contributions, and ensure collaboration transparency.

Your tasks are,

1. Form a group with maximum 5 members.
2. Identify a startup company and conduct an interview or discussion to understand a current operational or management issue.
3. Define the problem clearly and propose a software solution that can address it.

4. Design and implement the solution in Java, applying OOP principles:
 - a. Encapsulation
 - b. Abstraction
 - c. Inheritance
 - d. Polymorphism
 - e. Exception Handling
 - f. Collections & Generics
 - g. File Handling
 - h. Interfaces & Packages
5. Demonstrate the use of a Version Control System (VCS) (e.g., Git/GitHub)
 - a. Commit and push regularly.
 - b. Use descriptive commit messages.
 - c. Demonstrate branch usage and merging.
 - d. Maintain a collaborative project repository.
6. Submit the final code, and presentation slides before the deadline.
7. Presentation and viva soon after the deadline.

Deadline: 30th November, 2025. (11:55PM)

File Naming Convention:

Final codes: GA_Codes_<GroupNo>.zip

Presentation: GA_<GroupNo>.pptx