

Object-Oriented Programming

Semester 2025-III

Workshop No. 1 — Object-Oriented Design

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Welcome to the first workshop of the *Object-Oriented Programming* course! This session focuses on creating a **conceptual design** for a *simple transactional application* you will develop during the semester. By applying object-oriented principles, you will structure your project's requirements, user interactions, and core classes in a clear, well-organized way.

Workshop Scope and Objectives:

- **Object-Oriented Concepts:** Introduce the main entities, operations, and data flows shaping your transactional application.
- **Requirements Gathering:** Specify both *functional* and *non-functional* requirements aligned with end-user needs.
- **User-Centric Design:** Create user stories that capture how end-users will interact with the proposed system.
- **CRC Cards & Mockups:** Develop preliminary *Class-Responsibility-Collaborator* (CRC) cards and *UI mockups* to define roles, relationships, and visual layouts.

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Any comment or concern regarding this workshop can be sent to Carlos A. Sierra at: cavirguezs@udistrital.edu.co.

Methodology and Deliverables:**1. Requirements Documentation:**

- *Functional Requirements:* Detail critical actions and system behaviors (e.g., user login, transaction handling).
- *Non-Functional Requirements:* Include performance criteria, usability guidelines, and security considerations.

2. User Stories:

- Write concise stories for different user roles (e.g., customer, admin).
- Emphasize acceptance criteria to guide future development and testing.

3. Mockups:

- Provide simple sketches or wireframes for key screens (e.g., main dashboard, transaction form).
- Briefly explain the rationale behind each design choice.

4. CRC Cards:

- Identify main classes, list responsibilities, and define collaborations.
- Ensure classes remain cohesive, with well-defined roles in the application's domain.

5. Delivery Format:

- Compile all documentation (requirements, user stories, CRC cards, mockups) into a single PDF.
- Organize your files in a folder named **Workshop-1** in your course project repository, with a **README.md** referencing each section.

Deadline: Friday, September 26th, 2025, 16:00. Late submissions may affect your grading according to course policies.

Notes:

- All documents must be in **English**.
- Cite any references (articles, tutorials) that influenced your design choices.
- Focus on clarity over complexity. This foundation will evolve as you progress through subsequent workshops and refine your transactional application.
- Treat this first delivery as a draft. You will revisit and improve your design in future workshops based on feedback and new requirements.
- Consider including a brief reflection (1-2 paragraphs) describing challenges faced and decisions made during this initial phase.

Good luck with your initial designs! Establishing solid requirements, user flows, and class responsibilities now will set you up for a successful implementation phase.