



**COMSATS University Islamabad, Lahore Campus**  
**Department of Computer Science**

**Assignment 1 (Term Project-Phase 1) – Spring 2024**

Course Title:	Object Oriented Programming				Course Code:	CSC241	Credit	4(3,1)
Course Instructor/s:	Zaheer A. Gondal				Program Name:	BCS		
Semester:	2 <sup>nd</sup>	Batch:	FA23-BCS	Section:		Date:	March 7 <sup>th</sup> , 2024	
Time Allowed:					Maximum Marks:		25	
Student's Name:					Reg. No.			

**Important Instruction:**

- Assume only 'Java' programming language is considered wherever applicable.
- Plagiarism will result in an F grade.
- Deadline: March 11<sup>th</sup>, 2024, at 11:59pm

**Note:** Term project will replace the theory assignments. The project is divided into 4 stages and each stage contributes to one theory assignment.

<b>Phase 1: Design and Planning</b>	<b>Due date: 11-March-2024</b>
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Define the requirements and scope of the project.

Identify the classes and methods needed for your application.

Create a class diagram.

Plan the development timeline and assign tasks to team members.

<b>Phase 2: Implementation</b>	<b>Due date:</b>
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<b>Phase 3: User Interface and Integration</b>	<b>Due date:</b>
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<b>Phase 4: Testing and Final Submission</b>	<b>Due date:</b>
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**A final viva will be conducted for the project's evaluation.**

## **SAMPLE PROJECT IDEAS**

1. A shopping cart application that allows users to add items to their cart, update quantities, and checkout. This project can involve creating classes for products, customers, and orders.
2. A library management system that allows users to search for books, borrow and return books, and manage their accounts. This project can involve creating classes for books, borrowers, and transactions.
3. A music player that allows users to create playlists, add songs, and play music. This project can involve creating classes for songs, playlists, and audio files.
4. A game like chess or checkers that allows users to play against each other or against the computer. This project can involve creating classes for game pieces, players, and game logic.
5. A weather application that provides current and forecasted weather data for a given location. This project can involve creating classes for weather data, location, and data retrieval.
6. A banking application that allows users to open accounts, make deposits and withdrawals, transfer funds, and view their transaction history.
7. A social networking application that allows users to create profiles, connect with friends, post updates, and view their newsfeeds. This project can involve creating classes for users, posts, and relationships.
8. A stock management system that allows users to manage stock levels, create purchase orders, and track sales. This project can involve creating classes for products, suppliers, and sales.
9. A recipe management system that allows users to search for recipes, add recipes to a cookbook, and generate shopping lists. This project can involve creating classes for recipes, ingredients, and cookbooks.
10. A personal finance application that allows users to track their income and expenses, create budgets, and generate reports. This project can involve creating classes for transactions, categories, and reports.
11. A movie recommendation engine that suggests movies based on user preferences and viewing history. This project can involve creating classes for movies, users, and recommendation algorithms.
12. A fitness tracker that allows users to set fitness goals, track their progress, and view statistics. This project can involve creating classes for workouts, users, and progress tracking.
13. A task management system that allows users to create tasks, assign tasks to team members, and track progress. This project can involve creating classes for tasks, users, and teams.
14. A hotel reservation system that allows users to search for rooms, make reservations, and view their booking history. This project can involve creating classes for rooms, reservations, and guests.
15. A ride-sharing application that allows users to find rides, request rides, and track their driver's location. This project can involve creating classes for users, rides, and drivers.

**Note:**

1. Students will work in a group of Four (4). The names/roll numbers of team members and term project idea should be submitted latest by **March 11<sup>th</sup> 2024, at 11:59pm.**
2. A few sample project ideas are given you can use your own idea but first share it with your teacher and get it approved.
3. Deadline for deliverables should be strictly followed.
4. No two groups can submit the same idea – It will be on FCFS basis.
5. You need to give the name to your team, provide the reason for that name, mention team members and team leader. Also mention 5 strengths and weaknesses of all team members including the leader.