

SECTION J

CS-112 PROPOSAL

Prepared by M.HAMDOON,BASILJOSEPH, YAHYA KHALID, ZEESHAN

ABOUT US

M.Hamdoon-2024387 YahyaKhalidKhan-2024664 Zeeshan Naseem-2024495 Basil Joseph-2024138

Are Developing a user-friendly car rental and buying system using core Object-Oriented Programming principles

MEET OUR TEAM AND OUR ROLES

M.HAMDOON

Class Designer/System Designer YahyaKhalid

Presentation Head/Front end designer

BASIL JOSEPH

BackEnd Development Head **ZEESHAN**

Testing And Integration Head

OUR GOALS

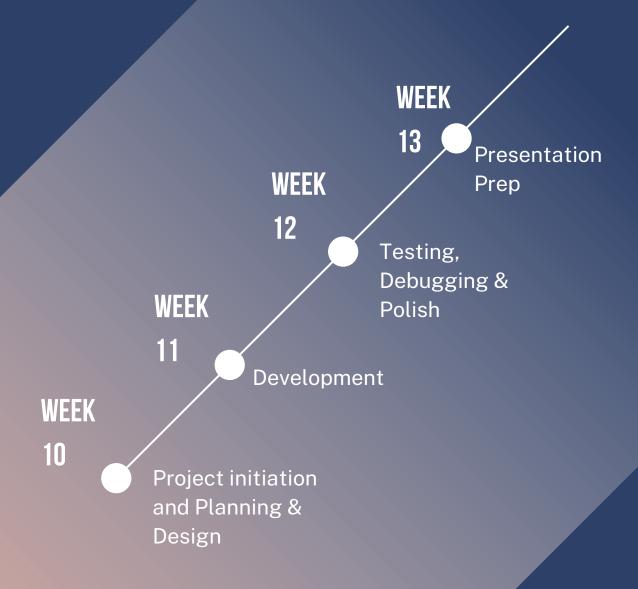
1

To design and implement a userfriendly car rental and buying system using core Object-Oriented Programming principles such as inheritance, polymorphism, encapsulation, and abstraction in C++.

2

To provide a functional consolebased interface that allows users to search, rent, and buy vehicles while managing vehicle inventory and maintaining data consistency through secure and modular code architecture.

PROPOSED TIMELINE





Hamdoon-will be responsible for crafting the foundational structure of the project using core object-oriented programming principles. Hamdoon will focus on abstraction by designing clean interfaces or abstract classes if needed, and provide detailed documentation or UML diagrams to guide the development team. His class structures will serve as the blueprint for the rest of the project.



Basil-will implement the core logic of the application. He will handle the functionality behind adding, removing, and searching for vehicles, as well as managing the operations for renting and buying cars. Basil will ensure that data is stored and retrieved effectively using file handling techniques to simulate a basic database. His work will be based on the class structures provided by Hamdoon, and he will collaborate closely with Yahya to provide a backend interface that the user interface can call.



Yahya-serving as the Presentation Head and Console Interface Designer, will focus on developing a smooth and user-friendly command-line interface. He will create a menu-driven UI that guides the user through all core functions such as renting a carhe will also be responsible for preparing the project presentation, which includes creating slides and explaining how the system functions to the class or evaluator.



Zesshan-he Testing and Debugging Lead, will ensure the overall functionality and reliability of the system. His work will begin with unit testing individual modules to confirm that each component works as expected. As the project comes together, he will conduct integration testing to ensure all parts — frontend, backend, and class structures — work smoothly together.