

# **RIPHAH INTERNATIONAL UNIVERSITY**



## **Faculty of Computing FINAL YEAR PROJECT PROPOSAL & PLAN**

**[SCU]**

### **Project Team**

<b>Full Name of Student</b>	<b>SAP Id</b>	<b>Program</b>	<b>Contact Number</b>	<b>Email Address</b>
Hanzala Tariq	20942	BSSE	0336-5562750	20942@students.riphah.edu.pk
Muhammad Fasih	22938	BSSE	0311-7443034	22938@students.riphah.edu.pk
Hanzala Iftikhar	24908	BSSE	0344-6792272	24908@students.riphah.edu.pk

**[Mr. Muhammad Usman Karim]**  
(Lecturer)

# [SCU]

## Change Record

Author(s)	Version	Date	Notes	Supervisor's Signature
Hanzala Tariq Muhammad Fasih Hanzala Iftikhar	1.0		We are aim to design a transportation system that benefits drivers, parents, and Students. Our strategy will ensure that students get an education quickly, safely, and reliably. It will also benefit women by offering them driving employment. We want to change the old approach of transportation. Our goal is to make education and transportation in Pakistan better for everyone in our community, so they have a better future.	
Hanzala Tariq Muhammad Fasih Hanzala Iftikhar	2.0		We improve our reliability in term of timely pick & Drop. We ensure the protection of user data. Establish a continuous monitoring through feedbacks and reviews.	
Hanzala Tariq Muhammad Fasih Hanzala Iftikhar	3.0		Establish clear procedures and communication channels for addressing emergency situations, such as accidents or natural disasters, to ensure the safety of students and passengers.	

# Project Proposal

**Project Title:** [SCU]

## **Opportunity & Stakeholders:**

The SCU (School College University) Transportation initiative represents a transformative opportunity by introducing a holistic approach to transportation services. Its key stakeholders, including students, parents/guardians, and drivers, stand to benefit significantly. Students gain improved access to education, extracurricular activities, and social interactions, encouraging holistic development. Parents and guardians benefit from safe and reliable transportation. Drivers are integral in providing efficient transportation, contributing to the system's success.

This initiative offers several opportunities, such as empowering students and reshaping communities. It empowers young women, providing safe transportation for pursuing education and opportunities. Most importantly, it enhances education accessibility by removing barriers, ensuring that education is accessible to all. This support inclusivity and diversity in learning environments, ultimately contributing to a brighter and more equitable future.

## **Existing System/ Description of the Current Situation:**

BusCaro is our existing competitor but they don't launch their application due to budget issues. Additionally they only provide facilities to CUST University students & they works on B2B model.

## **Problem Statement:**

Transportation problems in Pakistan make it difficult for students to continue their education, especially female students. Many students attending universities, colleges, and schools face transportation-related challenges that hinder their ability to access educational institutions efficiently and affordably. These challenges include unreliable

public transportation, high costs associated with private transportation, and potential safety concerns for those who have to commute long distances. As a result, there is a vital need to develop a Student Transportation System (SCU) to address these issues and enhance the overall educational experience for students.

### **Proposed Solution:**

We aim to design a transportation system that benefits drivers, parents, and Students. Our strategy will ensure that students get an education quickly, safely, and reliably. It will also benefit women by offering them driving employment. We want to change the old approach of transportation. Our goal is to make education and transportation in Pakistan better for everyone in our community, so they have a better future.

### **Scope of the Project:**

#### **University:**

Firstly users register their selves & both can switch mode according to their need (driver / passenger). Students & Teachers will get reliable transportation services.

- **Ride-Sharing**

In this module Students & Teachers are able to share their ride through ride-sharing to overcome their financial burden.

- **Door-step**

In this module Students will get door to door transportation services.

- **Tracking**

In this module Parents/Guardians & Students track their rides to ensure their safety.

#### **School & College:**

In this module Students will get door to door transportation services.

- **Tracking**

In this module Parents/Guardians & Students track their rides to ensure their safety.

### **Route Management:**

In this module driver register their selves. Driver will define their routes to give Pick & Drop services.

We will provide route optimization that will enhance the efficiency of your transportation services but also ensures that students and drivers experience smoother and more reliable journeys.

**Admin:**

Admin will track the record of all registered users and there is a queries section in which admin can receive all queries of the user. Admin can block the passengers and drivers if he gets any complaint.

**Booking:**

Students and Parents/Guardians allow scheduling transportation services conveniently. Users can select pick-up and drop-off locations, specify their preferred time slots, and make bookings with ease.

# List of Faculty Proposed Changes

Project Title

Supervisor's Signature: \_\_\_\_\_

Proposed Change	Proposed By	Supervisor's Decision
Ensure Reliability through Pick & Drop on time.	Muhammad Usman Karim	
Ensure Safety through Safety button & regular verification of vehicle maintaince.	Shahzad Ahmed Khan	

# Project Plan

## Work Breakdown Structure:

### 1. Project Management

- 1.1. Work Breakdown Structure (WBS)
- 1.2. Roles & Responsibility Matrix
- 1.3. Change Control System

### 2. Reports / Documentation

- 2.1. Team Members and Project Proposal
- 2.2. Project Proposal Document
  - 2.2.1. Opportunities and Stakeholders
  - 2.2.2. Existing Systems
  - 2.2.3. Problem Statement
  - 2.2.4. Proposed Solution
  - 2.2.5. Project Scope
    - 2.2.5.1. University
    - 2.2.5.2. School & College
    - 2.2.5.3. Booking
    - 2.2.5.4. Route management
    - 2.2.5.5. Admin
- 2.3. Proposal Plan
  - 2.3.1. Proposed changes
  - 2.3.2. Work Breakdown Structure
- 2.4. Planning Document
  - 2.4.1. Problem the Software will solve
  - 2.4.2. The development approach the team will use
  - 2.4.3. The Primary Function of the Software
  - 2.4.4. The Order of Development
  - 2.4.5. Leadership Roles for the Project
  - 2.4.6. Each Team Member's Responsibilities
- 2.5. Final documentation Introduction
- 2.6. Market Survey

- 2.6.1. Surveys
- 2.6.2. Interviews
- 2.6.3. Brainstorming
- 2.6.4. Customer observation

## 2.7. Requirements Analysis

- 2.7.1. Elicited Requirements
- 2.7.2. Functional Requirements
- 2.7.3. Non-Functional Requirements
- 2.7.4. Stakeholder Requirements

## 2.8. System Design

- 2.8.1. Interface Design
- 2.8.2. Architectural Design
- 2.8.3. Use Cases
- 2.8.4. Activity Diagrams

## 2.9. Implementation

## 2.10. Testing & Performance Evaluation

# 3. System

## 3.1. Development Environment

- 3.1.1. IDE (VS Code)
- 3.1.2. Version Control
- 3.1.3. Server
- 3.1.4. Database

## 3.2. Mobile Application

- 3.2.1. Front-end
- 3.2.2. Back-end

## 3.3. Website (admin)

- 3.3.1. Front-end
- 3.3.2. Back-end



## Roles & Responsibility Matrix:

The purpose of roles & responsibility matrix is to identify who will do what.

WBS #	WBS Deliverable	Activity #	Activity to Complete the Deliverable	Duration (# of Days)	Responsible Team Member(s) & Role(s)
2	Documentation	2.1	Team Members and Project Proposal	1	Hanzala Tariq Muhammad Fasih Hanzala Iftikhar
2	Documentation	2.2	Project Proposal Document	4	Hanzala Tariq Muhammad Fasih Hanzala Iftikhar
2.2	Project Proposal Document	2.2.1	Opportunity & Stakeholders	1	Hanzala Tariq Muhammad Fasih Hanzala Iftikhar
2.2	Project Proposal Document	2.2.2	Existing Systems	2	Hanzala Tariq Muhammad Fasih Hanzala Iftikhar
2.2	Project Proposal Document	2.2.3	Problem Statement	1	Hanzala Tariq Muhammad Fasih Hanzala Iftikhar
2.2	Project Proposal Document	2.2.4	Proposed Solution	1	Hanzala Tariq Muhammad Fasih Hanzala Iftikhar
2.2	Project Proposal Document	2.2.5	Project Scope	4	Hanzala Tariq Muhammad Fasih Hanzala Iftikhar
2.3	Proposal Plan	2.3.1	Proposed changes	2	Hanzala Tariq Muhammad Fasih

					Hanzala Iftikhar
2.3	Proposal Plan	2.3.2	Work Breakdown Structure	3	Hanzala Tariq Muhammad Fasih
2.4	Planning Document	2.4.1	Problem the Software will solve	1	Hanzala Tariq Muhammad Fasih Hanzala Iftikhar
2.4	Planning Document	2.4.2	The development approach the team will use	1	Muhammad Fasih Hanzala Iftikhar
2.4	Planning Document	2.4.3	The Primary Function the Software	1	Hanzala Iftikhar
2.4	Planning Document	2.4.4	The Order of Development	1	Hanzala Tariq Muhammad Fasih Hanzala Iftikhar
2.4	Planning Document	2.4.5	Leadership Roles of the Project	1	Hanzala Tariq
2.4	Planning Document	2.4.6	Each Team Member's Responsibilities	1	Hanzala Tariq
2	Documentation	2.5	Final Documentation Introduction	1	Hanzala Iftikhar
2	Documentation	2.6	Market Survey	6	Hanzala Tariq Muhammad Fasih
2.6	Market Survey	2.6.1	Survey	1	Hanzala Tariq Muhammad Fasih
2.6	Market Survey	2.6.2	Interviews	1	Hanzala Tariq Muhammad Fasih Hanzala Iftikhar
2.6	Market Survey	2.6.3	Brainstorming	2	Hanzala Tariq Muhammad Fasih Hanzala Iftikhar

2	Documentation	2.7	Requirement Analysis	5	Hanzala Tariq Muhammad Fasih Hanzala Iftikhar
2.7	Requirement Analysis	2.7.1	Elicited Requirements	1	Hanzala Tariq Muhammad Fasih Hanzala Iftikhar
2.7	Requirement Analysis	2.7.2	Functional Requirements	4	Hanzala Tariq Hanzala Iftikhar
2.7	Requirement Analysis	2.7.3	Non-Functional Requirements	3	Muhammad Fasih
2.7	Requirement Analysis	2.7.4	Stakeholder Requirements	1	Muhammad Fasih
2	Documentation	2.8	System Design	8	Hanzala Tariq
2.8	System Design	2.8.1	Interface Design	8	Hanzala Tariq Hanzala Iftikhar
2.8	System Design	2.8.2	Architectural Design	3	Hanzala Tariq
2.8	System Design	2.8.3	Use Cases	3	Hanzala Tariq
2.8	System Design	2.8.4	Activity Diagrams	5	Hanzala Iftikhar
2.9	Implementation	2.9	Development	30	Hanzala Tariq Muhammad Fasih Hanzala Iftikhar
2.10	Testing & Performance Evaluation	2.10	Testing & Performance Evaluation	8	Muhammad Fasih Hanzala Iftikhar
3	System	3.1	Development Environment	10	Hanzala Tariq Muhammad Fasih Hanzala Iftikhar
3	System	3.2	Mobile Application	40	Hanzala Tariq Muhammad Fasih

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3.2	Mobile Application	3.2.1	Front End	20	Hanzala Tariq Muhammad Fasih
3.2	Mobile Application	3.2.2	Back-End	20	Hanzala Tariq Muhammad Fasih
3	System	3.3	Website	14	Hanzala Iftikhar
3.3	Website	3.3.1	Front-End	7	Hanzala Iftikhar
3.3	Website	3.3.2	Back- End	7	Muhammad Fasih Hanzala Iftikhar

## Approval

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### Project Supervisor

Comments \_\_\_\_\_  
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Name: \_\_\_\_\_

Date: \_\_\_\_\_ Signature: \_\_\_\_\_

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### Project Coordinator

Comments \_\_\_\_\_  
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Name: \_\_\_\_\_

Date: \_\_\_\_\_ Signature: \_\_\_\_\_