**COMSATS University Islamabad**

**CSC291 Software Engineering Concepts**

**Assignment # 1**

**Fall 2023**

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Submitted on: **09/10/2023.**

**Department of Computer Science**

**COMSATS University Islamabad, Lahore Campus**

**Assignment Task:**

Write a Contract between a Software Development Company and a University for the development of a Campus Management System (CMS).

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On October 8th, 2023, the contract has been established between the two parties mentioned below,

**The Programmer’s Force,** up and coming software and technology company under the laws of the Islamic State of Pakistan, with its main office situated in Johar town G3, Lahore, Punjab, will be referred to as the "Company" hereinafter.

And

**Comsats University Islamabad (CUI),** a prominent educational institution located at Park Road, Tarlai Kalan, Islamabad, is referred to as the “Client”.

(collectively, referred to as the “Parties”).

# 1.Introduction

## 1.1 Purpose

The Client intends to implement CUI Portal (Campus Management System) to streamline the efficiency of its academic and financial management operations. For this purpose, solely, Programmer’s Force (Company) has been elected to take over this comprehensive project.

## 1.2 Demands

The client wants full functional modules on the dates elaborated on,

* Milestones – Module Release Date

These modules will be fully functional and ready for deployment and implementation and personnel training.

# 2. Objectives

* To enhance the track record of the students kept by teachers.
* To highlight the problematics areas of management
* To further ensure that a robust and secure system is developed to be used across the entirety of the institute.
* To integrate all campuses and its management on a sole platform.
* To maintain and enhance the data trends available for future updates and maintenance (Legacy Software Support).

# 3. High-level Modules

**Student Management Module:** Admissions, Profile Checking, Assignments and Quiz Upload, Attendance check and dispute resolution, Viewing updated Timetable.

**Faculty Management Module:** Upload attendance, Upload Marks, Scheduling Assignments and Quizzes, Upload Study Materials, Salary Deposit Slips.

**Course Management Module:** Course Selection, Crouse Drop, Course Information i.e., credit hours, selective/elective course.

**Financial Management Module:** Faculty Salaries, Tuition Fees, Billing, Fines i.e., late payment, library fines and such.

**Library Management Module:** Issuing of Books, Catalog of Books, Available books.

**Reporting and Analysis:** Professor reviews trends (dot plot), GPA calculation, dashboards, Progress Report, Viewing the updated transcript.

# 4. Time Frame

This project needs to be completed within 40 months of the signing of the contract. The specified completion date will be June 2025 – July 2025 as agreed upon in the terms and conditions mention in

* Refer to: Terms and Conditions

**(Delivery of the product will be done in multiple time frames in the form of completed milestones.)**

# 5.Cost

The total cost for developing, implementing, and personnel training for CUI Portal is approximately $1.51 Millon. Detailed explanation in:

* 6. Milestones (Price Break Down)

**(The payment of the product will be made in multiple time frames as multiple milestones are accomplished.)**

# 6.Milestones

This refers to completion of the project in multiple/numerous parts called milestones. Each milestone will have a specific cost, timeframe, and details(documentation/Manuals). The milestones are implemented and completed on a priority basis as specified by the stakeholders.

**(It will be made sure that the completed module is implemented on the specified time.)**

## 6.1 Student Management Module:

### 6.1.1 Description

The module will include the following:

Admissions, Profile Checking, Assignments and Quiz Upload, Attendance check and dispute resolution, Viewing updated Timetable.

### 6.1.2 Timeframe

6 months from the start of the project as agreed upon in the terms and conditions.

### 6.1.3 Cost

$125,000 to be paid on completion of the module.

## 6.2 Faculty Management Module:

### 6.2.1 Description

The module will include the following:

Upload attendance, Upload Marks, Scheduling Assignments and Quizzes, Upload Study Materials, Salary Deposit Slips.

### 6.2.2 Timeframe

6 months from the completion and payment of module 1 as agreed upon in the terms and conditions.

### 6.2.3 Cost

$250,000 to be paid on completion of the module.

## 6.3 Course Management Module:

### 6.3.1 Description

The module will include the following:

Course Selection, Crouse Drop, Course Information i.e., credit hours, selective/elective course.

### 6.3.2 Timeframe

4 months from the completion and payment of module 2 as agreed upon in the terms and conditions.

### 6.3.3 Cost

$100,000 to be paid on completion of the module.

## 6.4 Financial Management Module:

### 6.4.1 Description

The module will include the following:

Faculty Salaries, Tuition Fees, Billing, Fines i.e., late payment, library fines and such. 6.4.2 Timeframe

### 6.4.2 Timeframe

10 months from the completion and payment of module 3 as agreed upon in the terms and conditions.

### 6.4.3 Cost

$350,000 to be paid on completion of the module.

## 6.5 Library Management Module:

### 6.5.1 Description

The module will include the following:

Issuing of Books, Catalog of Books, Available books.

### 6.5.2 Timeframe

3 months from the completion and payment of module 4 as agreed upon in the terms and conditions.

### 6.5.3 Cost

$85,000 to be paid for completion of the module.

## 6.6 Financial Management Module:

### 6.6.1 Description

The module will include the following:

Professor reviews trends (dot plot), GPA calculation, dashboards, Progress Report, Viewing the updated transcript.

### 6.6.2 Timeframe

10 months from the completion and payment of module 4 as agreed upon in the terms and conditions.

### 6.6.3 Cost

$600,000 to be paid for completion of the module.

# 7. Key Stakeholders

## 7.1 Client Stakeholders

* Directors (all campuses)
* HODs (all related departments)
* Concerned Personnels

## 7.2 Company Stakeholders

* Mr. Moeez Ahmad (Project Manager)
* Mr. Hammad Hafeez (CO)
* Mr. Shabab Akbar (Requirement Gathering team leader)
* Mr. Muhammad Fasih (Monitoring Director)

# 8 Terms and Conditions

## 8.1 Complete Implementation

The company will make sure that the software is implemented in its entirety with all its modules within the agreed upon time.

## 8.2 Maintenance/Updates

The company will provide full maintenance/updates of the product. In this regard the company will provide two personnel who will provide monthly maintenance for the next 5 years.

## 8.3 Legal Usage

This software will be the legal property of Comsats University Islamabad (Client) after the complete payment has been made. Comsats University Islamabad will receive a royalty free license to use and modify. Hence, therein only the completed software is provided.

## 8.4 Personnel Training

The company will provide training to the core staff of Comsats University Islamabad. The training will consist of a step by step by training program. The staff will be required to be available at the stated times agreed upon. The Company shall not be liable in case of any absence of staff person. The duration of the train will be 10hrs weekly for a total of 40hrs for free. Any further training will require additional payment to be made which will be provided in a separate contract.

## 8.5 Legality and Liability

All the legalities and liabilities will be under the law of Islamic State of Pakistan including:

* In case of a natural disaster the company will not be responsible for any type of losses or compensations. Both parties will cover 50% of the losses that may occur.
* In case of a requirement change after the agreement the company will charge an additional fee of 20% per requirement in case of specified module.
* In the event of an additional module being added this entire contract will be suspended unless a quote higher cost than the market price is made.
* The company shall not be responsible for any case of illegal use of the software by Comsat University Islamabad and its legal parties.
* Any harm done to the institution made by the hardware or software after the regulation and testing phase (not including the time for the maintenance phase) is the sole responsibility of the client.
* For this contract to be in effect there should be at least 3 minimum signatures with the date required from both sides. (Client: Director, Rector, DCOs) (Company: Project Manager, Software Engineer with 5 years or more experience, CEO(++stamp)).
* The contract will be in effect immediately right after both parties have signed their consent.

**Client’s Signature: Software Engineer Signature:**

1. **-------------------------- 1. --------------------------**
2. **-------------------------- 2. --------------------------**
3. **-------------------------- 3.---------------------------**

**Date: Stamp (CEO’s Approval):**