**CSC404 – Programming II**

**Overview**

This project aims to develop students’ problem-solving strategies, techniques and analytical skills that can be applied to computer field or in other areas as well as to use in their subsequent course work and professional development. Students are required to identify a problem, design appropriate solution and solve the problem in computerized way. This project will emphasize on the introduction to control and data construct with the use of C++ programming language to illustrate the methods.

**Instructions:**

1. Each student is required to solve the given problem. Then, develop a system to solve the problem. The system must fulfils the system requirements listed below:

i. Correctness

 The system can solve the stated problem and output should be according to the specifications.

ii. Reliability

 The system should function accurately and correctly for a period of time over all ranges and combinations of data.

iii. User friendliness -Easy to use with enough information.

iv. Efficiency

 Apply all the control structure techniques (sequential, selection, repetition, function, and array) that covered in CSC404 and provide appropriate output.

v. Readability of code

 The source code should be simple and easy to understand. Include comments in your coding.

2. Solve the problem by using Program Development Life Cycle (PDLC) Model.

i. Analysis Phase -Define the problem by determining the input, process and output required.

ii. Design Phase -Identify and design the solution using flowchart.

iii. Implementation/Coding Phase -Write a program to solve the problem by using C++ programming language

iv. Testing Phase -Check and verify the correctness of the output.

v. Maintenance Phase -To ensure that the system is fully functioning before the assignment submission.

3. Prepare a complete report which consists of:

i. Assignment Cover Page\*

ii. Evaluation Form\*

iii. System synopsis

 Analysis (input, process, output)

 Flow Chart

iv. Source code (include comments)

v. Two (2) samples of output

\* Please use Assignment Cover and Evaluation Form provided

4.All students are required to submit the softcopy of the program and report on week 14. Send the softcopy to the folder determined by the lecturer.

**EVALUATION FORM**

**CSC 404 MINI PROJECT**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| |  |  |  |  | | --- | --- | --- | --- | | **NAME** | | **MATRIC NO.** | | |  | |  | | | **Content** | | | **Marks** | | 1. **Synopsis of the system** | -describe all the data needed (3 marks) -describe the process on how program work (4 marks) -describe all the information to display (3 marks) | | */10* | | **2. Flow Chart** | Diagrams -use correct diagrams | | /05 | | Flow of Program -show logic flow | | /05 | | Explanation -use words to explain the action | | /05 | | Input -list all the variables needed | | */05* | | Process -state all the process needed | | /05 | | Output -list all the variables needed | | /05 | | **3. Source Code** | Correctness -The system can solve the assigned problem and output should be as per the specifications. | | /05 | | Reliability -The system should function accurately for a long period of time and also function correctly over all ranges and combination of data. | | /05 | | User friendliness -Easy to use with enough information. | | /05 | | Efficiency -Use of techniques covered and provides quality output, - -function (5 marks) -array (5 marks) -input /output statements (5 marks) files(5 marks) struct (5 marks) pointers (5 marks) *\*Choose and adjust applicable to problem* | | /30 | | Readability of code -The source code should be simple and easy to understand. | | /05 | | **4. Screen output printed** -menu (2 marks) -layout creativity (3 marks) | | | /05 | | **5. Overall effort** in the project | | | /05 | | ***TOTAL*** | | | /100 | |
| *Poor: 0-1 / 0-3 marks Moderate : 2-3 / 4-6 marks Good :4-5 / 7-10 marks* |



**PROJECT TITLE:**

**PREPARED BY:**

**UNIVERSITI TEKNOLOGI MARA**

**CSC404 PROGRAMMING II**

**PREPARED FOR:**

**Lecturer’s Name:**

**DUE DATE: WEEK 14**