

**School of Psychology and Computer Science**

**CO1404 (CO1409) – Programming 2021/2022**

* **Assessment 1**: Coursework
* **Title:** UCLan Pizza Ordering Application

**Name:** <Insert your full name here>

**Email :** <Insert UCLAN Email here>

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# Introduction

<

Here you should write a brief introduction to the report which provides an overview of its intentions and its contents. Remember to write in the 3rd person!

* Any text in red please delete before your submission. This is just to provide you with some guidance.

>

# Questions & Answers

Please provide your own answers to the following questions (A - E). Take note of the number of potential marks awarded for each question, as this is an indicator to how much detail you should provide.

**Question A**

|  |  |
| --- | --- |
| In C++, which of the following data types should be used to store the price of an item – i.e. 4.30  Please choose one of the following options by entering **X** into the box of your selection | |
| Options | Selection |
| string |  |
| int |  |
| double |  |
| bool |  |

***(1 Mark)***

**Question B**

|  |  |
| --- | --- |
| Which of these would not improve the readability of code?  Please choose one of the following options by entering X into the box of your selection | |
| Options | Selection |
| Comments |  |
| Meaningful Variable Names |  |
| Indentation |  |
| The Debugger |  |

***(1 Mark)***

**Question C**

|  |  |
| --- | --- |
| Examine the following code.  Which of the following should replace **<operator>** in order for **result** to have a value of **2?**         int result;         int value = 50;         if (value > 0 **<operator>** value <= 20)         {                result = 1;         }         else if (value > 20 **<operator>** value <= 50)         {                result = 2;         }         else if (value > 50 **<operator>** value < 75)         {                result = 3;         }    Please choose one of the following options by entering **X** into the box of your selection | |
| Options | Selection |
| && |  |
| == |  |
| || |  |
| != |  |

***(1 Mark)***

**Question D**

|  |
| --- |
| In the space provided below, declare a string variable called **name** and initialise it to **Bailey**.  *Take care with capitalisation* |
|  |

***(2 Marks)***

**Question E**

This question is divided into 3 parts.

|  |  |
| --- | --- |
| **1.Which of the following keywords is used to pass a value back from a function**  Please choose one of the following options by entering X into the box of your selection | |
| Option | Selection |
| for |  |
| return |  |
| pass |  |
| int |  |

***(1 Mark)***

|  |
| --- |
| **2. In the space below, write a function called addTax that adds the VAT to a price of an item.**  Your function should take the original price as a parameter and return the price with the tax added.  You should use the following calculation to calculate the price with VAT added:  **originalPrice \* 1.2**  You do not have to write any code to call the function from int main(). |
|  |

***(3 Marks)***

|  |
| --- |
| **3. State an advantage of using functions within your code.** |
|  |

***(1 Marks)***

# Documentation

## Variables

<Populate the table below with all the variables you have created in your application>

|  |  |  |
| --- | --- | --- |
| **Variable Name** | **Type** | **Description** |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

## Methods & Functions

<Please duplicate the following table for each method / Function you have created in your application>

|  |  |  |  |
| --- | --- | --- | --- |
| **Name** |  | **Return Type** |  |
| **Parameter** |  | | |
| **Description** |  | | |

|  |  |  |  |
| --- | --- | --- | --- |
| **Name** |  | **Return Type** |  |
| **Parameter** |  | | |
| **Description** |  | | |

## User Guide

# Testing

The following use-case will be used to test aspects of your application. Please provide sufficient evidence (this includes screenshots of your application) to demonstrate how your application fulfils the testing use-case criteria defined below.

<Follow the instructions carefully. Accuracy is important. Please ensure that screenshots are clearly readable! And insert them in the space provided.>

## Use-case

|  |
| --- |
| 1. Add **5.00** credits to your balance.   Show before and after screenshots |
|  |
| 1. Select a **7 inch** pizza.   Show before and after screenshots |
|  |
| 1. Add a **Ham** to your pizza.   Show before and after screenshots |
|  |
| 1. Add a **Pepperoni** to your pizza.   Show before and after screenshots |
|  |
| 1. Add a **Mushrooms** to your pizza.   Show before and after screenshots |
|  |
| 1. Attempt to **Checkout**   Show before and after screenshots |
|  |
| 1. Add **2.00** additional credits to the vending machine   Show before and after screenshots |
|  |
| 1. **Checkout**   Show before and after screenshots |
|  |
| 1. **Show remaining balance**   Show before and after screenshots |
|  |

# Reflection