**ICTPRG302**

Apply Introductory

Programming Techniquesdata:image/png;base64,

## **Task 1** -Console Output

**1.1 - Video**

**Submit a video of discussion with your manager clarifying the requirements**

You will need to discuss the application requirements with your manager with one (1) other person that assumes the role of a manager. The manager in the video will be required to read the managers script (link below) and fill in the third party observation form (link below).

**Link To The Managers Script**

<https://drive.google.com/file/d/1g7rLsT5Ueuj9vf2TWXES6-evWnMIse9U/view?usp=sharing>

**Link To Third Party Observation Form**

<https://docs.google.com/document/d/1g3rLpuy3UPn5YwAZD3FiljMpkvRsVpyJ/edit?usp=sharing&ouid=115107180591790561532&rtpof=true&sd=true>

**Place The Link to Your Video Here -**

**1.2 - Software Design Document**

You will need to create a Software Design Document to plan your new piece of software and will include the following:

* Document requirements of the application from the meeting with your manager.
* Identify code standards and guidelines to be used in the project.

**Link To The Software Design Document Example**

[**https://drive.google.com/file/d/1Rq5P5Q71AooJ9eyAQ0OCaZSdXO5qhxEg/view?usp=sharing**](https://drive.google.com/file/d/1Rq5P5Q71AooJ9eyAQ0OCaZSdXO5qhxEg/view?usp=sharing)

**Submit your software design document, including sign-off section**

Insert Software Design Document and Sign-off Section Here

**1.3 - C Program**

Submit a single application in C that will output text to the console. The user must be able to input their name and the output text should be the following:

*Welcome to FDS - <name>*

Use the library function - **ft\_strjoin** - that is available in your 42 Libft Project for this C application.

**Submit a screenshot of the code and the output text. (jpeg or png)**

Insert Screenshot Here

This C application will have the following:

**Logging**

* Console logs to examine variable contents for debugging purposes.
* Add console logging as your application runs to verify the behaviour and variable contents.

**Error logs if input is not as expected**

* Log errors to the console with a meaningful description.

**Comments**

* Clarify the meaning of your code using commenting.

**Submit a screenshot that your code meets standards (Norminette and Compile - gcc)**

Insert Screenshot Here

**Test Results**

Insert Test Results Here

**Link To A Test Results Example** <https://drive.google.com/file/d/17O4CjeRm1ihBw3k-BRs73Yy884BJZrgZ/view?usp=sharing>

## 

## **Task 2** - C Variables, Data Types and if/else Statements

**2.1 Continuation of Task 1.3**

Print out the full company name rather than just “FDS”, update your application in Task 1 to print out the full name of the company.

*Welcome to Fancy Development Services - <name>*

**Submit screenshot of your code and the output text here (jpeg or png)**

Insert Screenshot Here

**2.2 - C Program**

Use **ft\_substr** and **ft\_strcat** from your Libft project in this new C function.

Create a function that will give the flexibility to either print out the full company name or the first letters as an acronym and be able to turn this off or on whenever required.

**This new function will have the following:**

* Store the company name in an array - [“Fancy”, Development”, Services”]
* This function will return a string which will be printed from the main function using a condition variable and a for loop.
* The function will return the first letter of each word or the function will return the full name

**Submit screenshot of the code and the output text from here (jpeg or png)**

Insert Screenshot Here

**Submit a screenshot that your code meets standards (Norminette and Compile - gcc)**

Insert Screenshot Here

Submit your **updated** software design document including **updated** tests

Insert Software Design Document and Updated Tests Here

**Submit your new test results**

Insert New Tests Here

### 

### 

### 

### 

## **Task 3** - if/elseif Statements

### 

**3.1 Continuation of Task 1.3 & 2.1**

### Create a group of all of the users into different groups based on the first letter of their name. Update the application to include a group number after the user's name.

### *Welcome to Fancy Development Services - <name> - <Group>*

### 

### Using the table below as a guide, use an **if** statement followed by an **else if** statement to look up the user’s group and output to the console.

**The new requirement will include the following:**

### A new function that will take in the users first initial and return the group string.

### Using a function from the library libft add the returned string to the original text.

### **Test cases**

### Console logs to examine variable contents

### Error logs if input is not as expected

### **Comments**

### Clarify meaning of code using commenting

**Submit screenshot of the output text from Task 3.1 here (jpeg or png)**

Insert Screenshot Here

## 

**Submit a screenshot that your code meets standards (Norminette and Compile - gcc)**

Insert Screenshot Here

**Submit your updated software design document including updated tests**

Insert Software Design Document and Updated Tests Here

**Submit your new test results**

Insert New Tests Here

## **Task 4 -** String Manipulation and File Input/Output

**4.1 Continuation of Task 1.3, 2.1 & 3.1**

### Have the user and group information be stored as a text file to be able to analyse the data later on.

Each data set should be stored as different data fields (*pipes are example only to separate data*):

Calculate the total number of students stored.

### 

### **Note: You are allowed to use functions that ain’t allowed by Moulinette.**

### **The New Requirements Are:**

### Function to create a new text file (if there is not one).

### The user name and group number from Question 3 to be added to the file.

### **Test Cases**

### Add 5 or more users (of different groups).

### Error logs if file is not closed after writing.

### Print out contents of text file to screen.

**Comments**

* Clarify meaning of code using commenting

**Submit screenshot of the output text from Task 4.1 here (jpeg or png)**

Insert Screenshot Here

### 

### 

### 

### 

### 

### 

### 

### 

### 

**Submit a screenshot that your code meets standards (Norminette and Compile - gcc)**

Insert Screenshot Here

**Submit your updated software design document including updated tests**

Insert Software Design Document and Updated Tests Here

**Submit your new test results**

Insert New Tests Here

## 

## **Task 5** - Assessment Upload

**Step 1**

Download this Google Doc as either a .docx or .pdf.

To download this Google Doc, do the following:

1. Click on **File** (top left corner) in this Google Doc.
2. Then click on **Download**.
3. Then click on either **Microsoft Word (.docx)** or **PDF Document (.pdf)**.

### 

### **Step 2**

### Submit your completed assessment as either a .docx or .pdf file to the following link:

<https://portal.academyit.edu.au/course/view.php?id=57&sectionid=562>