THIS IS A PROCTORED PRACTICAL

YOU MUST SHARE YOUR SCREEN SO YOUR PARTICIPATION IN THIS PRACTICAL

CAN FULLY INVIGILATED

1. Create a Github repository "Assembly\_and\_C"
2. Create a sub directory PRACTICAL\_##
3. Add Github link to CA Spreadsheet

e.g [https://STUDENTID.github.com/Assembly\_and\_c/PRACTICAL\_##](https://studentid.github.com/Assembly_and_c/PRACTICAL_#)

1. Invite Lab Supervisors including **MuddyGames** as a collaborators
2. Go to designated group to complete practical
3. Upload completed Practical files to Github repository

NOTE: Use of Visual Studio Code or other C code editor allowed, use of internet allowed, use of slide deck(s) allowed. Installer located here <https://code.visualstudio.com/>or nontelemetry version <https://vscodium.com/>

Create a unique folder ***e.g. practical\_## / practical\_##\_part#*** for each practical section below.

**Objective** Understand and utilise Conditional Branches and Control Structures**:**

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| **1** |  | Create a C programming project folder and name the folder  ***./practical\_08/***    Within the folder create a subfolder  ***practical\_08\_part1***    Within the subfolder create a file  ***main.c***    Edit compile and execute the code across and observe while debugging.    Compile using the  command below | #include "stdio.h" // standard IO header file    // Mainline  int main()  {  printf("Hello Assembly and C\n"); // Call to printf function  return 0;  }  [**Source Code**](https://bitbucket.org/MuddyGames/introduction_to_c/src/main/src/introduction/) |
|  | gcc -S ./src/practical\_08/practical\_08\_part1/main.c -I. | | |
| **2** |  | Create a C programming project folder and name the folder  ***./practical\_08/***    Within the folder create a subfolder  ***practical\_08\_part1*** | #include "stdio.h" // standard IO header file    void main()  { int a = 10; int b = 20; float c = 20.0122; char my\_char = 'a'; |
|  | | Within the subfolder create a file  ***main.c***    Create a Makefile for the project and name the file ***Makefile (note no extension)***    Details for creating a Makefile for projects are located [here.](https://bitbucket.org/MuddyGames/introduction_to_c/src/main/) | char \*my\_char\_ptr = "Hello";    // Call to printf function a is substituted for  %d  printf("Value of a is %d\n", a);    // Call to printf function a is substituted for  %d  printf("Value of b is %d\n", b);    // Call to printf function c is substituted for %f precision is 4 characters printf("Value of c is %.4f\n", c);    // Call to printf function my\_char is substituted for %c printf("Value of my\_char is %c\n", my\_char);    // Call to printf function my\_char\_ptr is substituted for %c printf("Value in memory for my\_char\_ptr is  %s\n", my\_char\_ptr);    // Call to printf function my\_char\_ptr is substituted for %c  printf("Value in memory for first char of my\_char\_ptr is %c\n", \*my\_char\_ptr);  }  [**Source Code**](https://bitbucket.org/MuddyGames/introduction_to_c/src/main/src/introduction/) |
| **3** | | Complete code examples lessons 01  to 12 and 14 | [**Source Code**](https://bitbucket.org/MuddyGames/introduction_to_c/src/main/src/introduction/) |
| **4** | | Complete Practical Quiz which will be provided by Lab Supervisor | |

**Demonstrate completed assembly files at the end of the LAB and ensure it has been checked**

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| **Student Name** | **Brandon Jaroszczak** | **Student Number** | **C00296052** |
| **Date** | **26/3/2025** | **Checked** |  |