PDS Lab 1
Section 3
Date: 08.04.2021

Managing your files

- Preferably create a folder in your machine called PDS-Lab and save all your assignment and test codes in that folder so that you can look it up whenever required.
- Naming your submission files:

  <Roll Number>_<Assignment/Test Number>_<Question Number>.c

  Eg. 20QD30010_A1_Q1.c, 20QD30010_A1_Q1a.c, 20QD30010_T2_Q3.c

Some Simple C Programs: Example 1

- **The following program prints “This is PDS lab class”**

```
#include <stdio.h>
main ()
{
    printf(“This is PDS lab class\n");
}
```

Some Simple C Programs: Example 2

- **The following program converts Fahrenheit to Centigrade**
- #include <stdio.h>
- main ()
- {
- int C, F;
- printf(“Enter the temperature in Fahrenheit \n");
- scanf(“%d”, &F);
- C = (5 * (F – 32)) / 9;
- printf(“The temperature in centigrade is %d”, C);
- }

Some Simple C Programs: Example 3

- **The following program calculates the area of a sphere**; **Area = 4 π r 2**
- #include <stdio.h>
- main ()
- {
- #define PI 3.14
- int r;
- float Area;
- printf(“Enter the radius \n");
- scanf(“%d”, &r);
- Area = 4 * PI * (r * r);
- printf(“The Area = %f”, Area);
- }

- ***Exercise:*** Now, change the printf statement to print both radius and Area

Some Simple C Programs: Tutorial 1

Write a C program (prog1.c) that evaluates the following arithmetic expressions and then prints out both results.

(a) X = 1.234 x 10^5 + 7.5 x 10^{-3}

(b) Z = 19.2sin25 + (5.6 + 12 / 7.2) x 10^5

Some Simple C Programs: Tutorial 2

Write a C program (prog2.c) to take a floating point number, round it off to the nearest integer and then print it.

Hint: Add 0.5 to the number and truncate it to an integer.

Some Simple C Programs: Assignment 1

Submit Tutorial 1 (rename your file properly)

Some Simple C Programs: Assignment 2

Write a C code to :

1. Take as input an integer n,
2. Compute the following sum

SUM = 1^2 + 2^2 + 3^2 + …….. + n^2

3. Print n and SUM

Hint: What have you learnt in Math?

Some Simple C Programs: Assignment 3

Write a C code which:

1. Reads a floating point number x and an integer n from the keyboard
2. Computes the sum x + (x+1) + (x+2) + … + (x+n)
3. Prints the value of x and the sum

Hint: What have you learnt in Math?