**H.M. Kavisha Thathsarani**

**Student No : 29630**

**Practical Number 4**

**1. Use If-Else and write a program that reads an integer and determines and prints if the number is even or odd. (i.e. divisible by 2)**

#include <stdio.h>

#include <stdlib.h>

int main()

{

int n1;

printf("Enter a number : ");

scanf("%d",&n1);

if (n1%2==0)

printf ("%d is an even number", n1);

else

{

printf ("%d is an odd number", n1);

}

//switch//

**Re-write the above program using a switch statement instead of an If-Else statement**

int no;

printf ("Enter a number :");

scanf ("%d",&no);

switch (no%2)

{

case 0: printf ("%d is an even number", no); break;

case 1: printf ("%d is an odd number", no); break;

default: printf("%d is an invalid input",no);

}

return 0;

}

**2.** **Write a simple menu driven calculator to perform (+ - / \*) operations. (The program must display a menu to select the desired operator**

#include <stdio.h>

#include <stdlib.h>

int main()

{

int n1, n2, opt, add, sub, mul;

float div;

printf ("Enter two numbers : ");

scanf ("%d %d",&n1,&n2) ;

printf (" 1-addition\n 2-subtraction\n 3-multiplication\n 4-division\n ");

printf ("select the operator :");

scanf("%d",&opt);

switch (opt)

{

case 1:printf ("Addition is %d",add,add=n1+n2);break;

case 2:printf ("Subtraction IS %d",sub,sub=n1-n2) ;break;

case 3:printf ("Multiplication is %d",mul,mul=n1\*n2) ;break;

case 4:printf ("Division is %.2f",div=n1/n2) ; break;

default:printf ("Invalid operator.");

}

return 0;

}

**3.** **Create a text-based, menu-driven program that allows the user to choose whether to calculate the circumference of a circle, the area of a circle or the volume of a sphere. The program should then input a radius from the user, perform the appropriate calculation and display the result**

#include <stdio.h>

#include <stdlib.h>

int main()

{

int r;

char ch;

const float PI=3.14159;

float A, C, V ;

printf("C-circumference of a circle\n A-area of a circle\n V-volume of a sphere\n");

printf("Choose a type: ");

scanf ("%s",&ch);

printf ("Enter radius: ");

scanf("%d",&r);

switch(ch)

{

case 'A':printf("Area of a circle = %.2f", A, A-PI\*r\*r);break;

case 'C':printf("Circumference of a circle = %.2f",C,C=2\*PI\*r);break;

case 'V':printf("Volume of a sphere = %.2f",V,V=(4\*PI\*r\*r\*r)/3);break;

default:printf("Invalid value");

}

return 0;

}