**ASSIGNMENT 9**

**1) Write a program which takes the month number as an input and display**

**number of days in that month.**

#include<stdio.h>

int main(){

int no;

printf("Month no. : ");

scanf("%d", &no);

switch(no){

case 1: printf("31 days"); break;

case 2: printf("28 days"); break;

case 3: printf("31 days"); break;

case 4: printf("30 days"); break;

case 5: printf("31 days"); break;

case 6: printf("30 days"); break;

case 7: printf("31 days"); break;

case 8: printf("31 days"); break;

case 9: printf("30 days"); break;

case 10: printf("31 days"); break;

case 11: printf("30 days"); break;

case 12: printf("31 days"); break;

default: printf("Invalid choice");

}

}

**2) Write a menu driven program with the following options:**

**a. Addition**

**b. Subtraction**

**c. Multiplication**

**d. Division**

**e. Exit**

#include<stdio.h>

int main(){

int a, b, op;

while(1){

printf("Enter operation: \n");

printf("1. Addition\n");

printf("2. Subtraction\n");

printf("3. Multiplication\n");

printf("4. Division\n");

scanf("%d", &op);

switch(op){

case 1:

printf("Enter numbers : ");

scanf("%d %d", &a, &b);

printf("%d+%d=%d\n", a,b,a+b);

break;

case 2:

printf("Enter numbers : ");

scanf("%d %d", &a, &b);

printf("%d-%d=%d\n", a,b,a-b);

break;

case 3:

printf("Enter numbers : ");

scanf("%d %d", &a, &b);

printf("%d\*%d=%d\n", a,b,a\*b);

break;

case 4:

printf("Enter numbers : ");

scanf("%d %d", &a, &b);

printf("%d/%d=%d\n", a,b,a/b);

break;

default: exit(0);

}

}

}

**3) Write a program which takes the day number of a week and displays a**

**unique greeting message for the day.**

#include<stdio.h>

int main(){

int num;

printf("Enter week day: ");

scanf("%d", &num);

switch(num){

case 1:

printf("Have a marvelous Monday!\n");

break;

case 2:

printf("Have a thoughtful Tuesday!\n");

break;

case 3:

printf("Have a wisdomous Wednesday!\n");

break;

case 4:

printf("Have a terrific Thursday!\n");

break;

case 5:

printf("Have a fabulous Friday!\n");

break;

case 6:

printf("Have a stressfree Saturday!\n");

break;

case 7:

printf("Have a sunny Sunday!\n");

break;

default: printf("Invalid choice");

}

}

**4) Write a menu driven program with the following options:**

**a. Check whether a given set of three numbers are lengths of an**

**isosceles triangle or not**

**b. Check whether a given set of three numbers are lengths of sides of**

**a right angled triangle or not**

**c. Check whether a given set of three numbers are equilateral triangle**

**or not**

**d. Exit**

#include<stdio.h>

int main(){

int a,b,c,isos,equi,right, choice;

while(1){

printf("Enter Choice: ");

printf("1. To check whether a triangle is an isosceles triangle or not\n");

printf("2. To check whether a triangle is a right angled trianle or not\n");

printf("3. To check whether a triangle is an equilateral triangle or not\n");

scanf("%d", &choice);

switch(choice){

case 1:

printf("Enter sides: ");

scanf("%d %d %d", &a, &b, &c);

isos=((a==b) || (b==c) || (a==c)) ? printf("Isosceles Triangle\n") : printf("Not an isosceles Triangle\n");

break;

case 2:

printf("Enter sides: ");

scanf("%d %d %d", &a, &b, &c);

right=((a\*a+b\*b==c\*c) || (b\*b+b\*b==a\*a) || (a\*a+c\*c==b\*b)) ? printf("Right Angled Triangle\n") : printf("Not a right angled triangle\n");

break;

case 3:

printf("Enter sides: ");

scanf("%d %d %d", &a, &b, &c);

equi=(a==b && b==c) ? printf("Equilateral Triangle\n") : printf("Not an Equilateral Triangle\n");

break;

default: exit(0);

}

}

}

**5. Convert the following if-else-if construct into switch case:**

**if(var == 1)**

**System.out.println("good");**

**else if(var == 2)**

**System.out.println("better");**

**else if(var == 3)**

**System.out.println("best");**

**else**

**System.out.println("invalid");**

#include<stdio.h>

int main(){

int var;

printf("Enter: ");

scanf("%d", &var);

switch(var){

case 1:

printf("Good");

break;

case 2:

printf("Better");

break;

case 3:

printf("Best");

break;

default: printf("Invalid");

}

}

6) **Program to check whether a year is a leap year or not. Using switch**

**Statement.**

#include<stdio.h>

int main(){

int year, a;

printf("Enter: ");

scanf("%d", &year);

a=year%4;

switch(a){

case 0:

printf("Leap year");

break;

default: printf("Not a leap year");

}

}

7) **Program to take the value from the user as input electricity unit charges**

**and calculate total electricity bill according to the given condition . Using**

**the switch statement.**

**For the first 50 units Rs. 0.50/unit**

**For the next 100 units Rs. 0.75/unit**

**For the next 100 units Rs. 1.20/unit**

**For units above 250 Rs. 1.50/unit**

**An additional surcharge of 20% is added to the bill.**