Assignment – 9

Switch Case Problems

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

number of days in that month ?  
solve -

#include<stdio.h>

int main()

{

int m;

printf("Enter the months number");

scanf("%d\n",&m);

switch(m){

case 1 :

{

printf(" jenuary\n");

printf("31 days\n");

break ;

}

case 2:

{

printf("february\n");

printf("29 days\n");

break ;

}

case 3 :

{

printf("march\n");

printf("31 days\n");

break ;

}

case 4 :

{

printf("april\n");

printf("30days\n");

break ;

}

case 5 :

{

printf("may\n");

printf("31 days\n");

break ;

}

case 6 :

{

printf("jun\n");

printf("30 days\n");

break ;

}

case 7 :

{

printf("july\n");

printf("31days\n");

break ;

}

case 8 :

{

printf("august\n");

printf("31 days\n");

break ;

}

case 9 :

{

printf("september\n");

printf("30 days\n");

break ;

}

case 10 :

{

printf("octomber\n");

printf("31 days\n");

break ;

}

case 11:

{

printf("november\n");

printf("30 days\n");

break ;

}

case 12:

{

printf("december\n");

printf("31 days\n");

break ;

}

default :

{

printf(" wrong input\n");

}

}

return 0;

}

Solve-

Enter the months number 5

may

31 days

2. Write a menu driven program with the following options:

a. Addition

b. Subtraction

c. Multiplication

d. Division

e. Exit   
solve –

#include<stdio.h>

int main()

{

int c,a,b,x;

while(1){

printf("enter the numbers");

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

printf("1.Addition\n");

printf("2.Subtraction\n");

printf("3.Multiplication\n");

printf("4.Division\n");

printf("5.exit\n");

printf("Enter your choice \n");

scanf("%d\n",&x);

switch(x){

case 1:

{

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

break;

}

case 2:

{

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

break;

}

case 3:

{

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

break;

}

case 4 :

{

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

break;

}

case 5:

{

break;

}

}

if(x==5){

break;

}

}

return 0;

}

Output-

enter the numbers 2

3

1.Addition

2.Subtraction

3.Multiplication

4.Division

5.exit

Enter your choice

1

Addition value is = 5

enter the numbers

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

unique greeting message for the day ?

solve -

#include<stdio.h>

int main()

{

int x;

printf(" enter the days numbers of week\n");

scanf("%d\n",&x);

switch(x){

case 1:

{

printf(" this is monday \n");

break;

}

case 2:

{

printf(" tuesday\n");

break;

}

case 3:

{

printf(" wednesday\n");

break ;

}

case 4:

{

printf(" thursday\n");

break ;

}

case 5:

{

printf(" friday\n");

break;

}

case 6:

{

printf(" saturday\n");

break ;

}

case 7 :

{

printf(" sunday \n");

break ;

}

default :

{

printf(" wrong input");

break;

}

}

return 0;

}

Output \_

Enter the days numbers of week

3

Wednesday

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

solve-

#include<stdio.h>

int main()

{

int a, b,c, choice;

printf("1. To check asosceles triangle or not\n");

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

printf("3. To check equilateral triangle or not\n");

printf("4. exit\n");

printf("Enter your choice\n");

scanf("%d\n",&choice);

printf("Ente lenth of three side of tringles\n");

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

switch(choice){

case 1:

{

if( a==b || b==c || c==a){

printf("asosceles tringles \n");

}

else{

printf(" not asosceles tringles\n");

}

break;

}

case 2:

{

if(a\*a == b\*b+c\*c || b\*b== c\*c+a\*a\*a || c\*c==a\*a+b\*b){

printf(" right angled triangle \n");

}

else

{

printf(" not right angled triangle \n");

}

break;

}

case 3:

{

if((a==b)&&(b==c)){

printf("equilateral triangle\n");

}

else

{

printf(" Not equilateral triangle\n");

}

}

case 4:{

break;

}

if(choice==4){

break;

}

}

return 0;

}

Solve-

1. To check asosceles triangle or not

2. To check right angled triangle or not

3. To check equilateral triangle or not

4. exit

Enter your choice

2

Enter length of three side of tringles

3

4

5

not right angled triangle

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

if(var == 1)

printf ("good");

else if(var == 2)

printf ("better");

else if(var == 3)

printf ("best");

else

printf ("invalid");

Solve –

#include<stdio.h>

int main()

{

int var;

printf(" Enter the value \n");

scanf("%d\n",&var);

switch(var){

case 1:

{

printf(" good\n");

break;

}

case 2:

{

printf(" better\n");

break;

}

case 3:

{

printf(" best\n");

break;

}

case 4:

{

printf(" invalid\n");

break;

}

}

return 0;

}

Solve –

Enter the value

2

Better

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

Statement ?

#include<stdio.h>

int main(){

int y;

printf("Eneter the year\n");

scanf("%d\n",&y);

switch(y%100==0){

case 1:

switch(y%400==0){

case 1:

printf(" Leap year\n");

break;

case 0:

printf(" Not leap year \n");

break;

}

break;

case 0:

switch(y%4==0){

case 1:

printf(" Leap year\n");

break ;

case 0:

printf(" Not leap year\n");

break;

}

break;

}

return 0;

}

Output –

Enter the year

2002

Not 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

Solve –

#include<stdio.h>

int main()

{

float x=256 ,amount=0, total=0;

switch(x<=50){

case 1: amount= x\*0.5;

break;

case 0: switch(x<=150){

case 1: amount = 25 + (x-50)\*0.75;

break;

case 0 : switch(x<=250){

case 1: amount = 100 + (x-150)\*1.20;

break;

case 0 : amount = 220 +(x-250)\*1.50;

break ;

}

break;

}

break ;

}

total = amount + amount \* 0.20;

printf(" Total amount of = %f\n",total);

return 0;

}

Output –

Total amount of = 274.799988

8. Program to convert a positive number into a negative number and negative

number into a positive number using a switch statement ?

#include<stdio.h>

int main()

{

int x;

printf("Enter the numbers\n");

scanf("%d\n",&x);

switch(x>=0){

case 1:

printf("%d",-x);

break;

case 0:

printf(" %d ",-x);

break;

}

return 0;

}

Output-

Enter the numbers -7

7

9. Program to Convert even number into its upper nearest odd number

Switch Statement ?

Solve –

#include<stdio.h>

int main()

{

int x;

printf(" Enter the number\n");

scanf("%d\n",&x);

switch(x%2==0){

case 1:

printf("%d\n",x+1);

break;

case 0 :

printf("%d\n",x);

break;

}

return 0;

}

output –

Enter the number 4

5

10. C program to find all roots of a quadratic equation using switch case ?

Solve –

#include<stdio.h>

#include<math.h>

int main()

{

int a,b,c,d,e,f,g,h,i,j,z;

char t = 'i';

printf("Enter the numbers");

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

d=b\*b-4\*a\*c;

switch(d>0){

case 1:

e=b\*b-4\*a\*c;

z= sqrt(e);

printf(" value of sqrt =%d\n",z);

f=-b\*z/2\*a;

printf("If d>0 ,then value will be %d\n",f);

break;

case 0: switch(d<0){

case 1:

g=4\*a\*c-b\*b;

h=sqrt(g);

printf(" value of sqrt %d\n",h);

i=-b/2\*a\*h\*t;

printf(" If d<0 , then value will be %d\n",i);

break ;

case 0:

j= -b/2\*a;

printf(" If,d=0 then, value will be %d\n",j);

break;

}

}

return 0;

}

Output-

Enter the numbers 1 5 5

value of sqrt =2

If d>0 ,then value will be -5