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\*\*Switch Case Problems\*\*

Q.1.Write a program which takes the month number as

an input and display number of days in that month.

Ans:

#include<stdio.h>

void main()

{

int x;

printf("Enter A Month Number");

scanf("%d",&x);

switch(x)

{

case 1:

printf("Number Of Days In Janeury\n31");

break;

case 2:

printf("Number Of Days In Feb \n sometimes 29 OR Sometimes 28");

break;

case 3:

printf("Number Of Days In March is\n31 ");

break;

case 4:

printf("Number of Days In April is\n30");

break;

case 5:

printf("Number Of Days In May is\n 31");

break;

case 6:

printf("Number Of Days In June is\n 30");

break;

case 7:

printf("Number Of Days In July is\n 31");

break;

case 8:

printf("Number Of Days In August is \n 31");

break;

case 9:

printf("Number Of Days in Saptember is\n 30");

break;

case 10:

printf("Number Of Days In October is \n 31");

break;

case 11:

printf("Number Of Days In November is \n 30");

break;

case 12:

printf("Number Of Days in December is\n 31");

break;

default:

printf("Not A Valid Month");

}

}

Q.2. Write a menu driven program with the following

options: a. Addition b. Subtraction c. Multiplication d. Division e. Exit

Ans:

#include<stdio.h>

#include<stdlib.h>

main()

{

int num,x,a,b;

while(1)

{

printf("\nPress 'a' : For Additon \n");

printf("Press 'b' : For Substraction \n");

printf("Press 'c' : For Multiplication\n");

printf("Press 'd' : For Division\n\n");

printf("Press 'e' : For Exit ");

printf("\n\nEnter Your Choice ");

scanf("%c",&x);

switch(x)

{

case 'a':

printf("\n\*Addition");

printf("\nEnter Two Number\n");

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

printf("\nSum is %d",a+b);

break;

case 'b':

printf("\n\*Substrastion");

printf("\nEnter Two Numbers\n");

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

printf("\nSubstraction Is %d",a-b);

break;

case 'c':

printf("\nMultiplication");

printf("\nEnter Two Number\n");

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

printf("\nMultiplication Is %d",a\*b);

break;

case 'd':

printf("\n\*Division");

printf("\nEnter Two Numbers\n");

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

printf("\nDivision is %d",a/b);

break;

default:

printf("Invalid choice");

case ‘e’:

exit(0);

printf("\n");

}

if(x==5)

break;

}

printf("\n\n");

}

Q.3. Write a program which takes the day number of a

week and displays a unique greeting message for the day.

Ans:

#include<stdio.h>

void main()

{

int x;

printf("Enter Day Number Of A Week ");

scanf("%d",&x);

switch(x)

{

case 1:

printf("Monday");

break;

case 2:

printf("Tuesday");

break;

case 3:

printf("Wednesday");

break;

case 4:

printf("Thuresday");

break;

case 5:

printf("Friday");

break;

case 6:

printf("Saturday");

break;

case 7:

printf("Sunday");

break;

default :

printf("Invalid Week Day");

break;

}

}

Q.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

Ans:

#include <stdio.h>

int main()

{

int c,side1, side2, side3;

printf("Enter Three Sides Of Triangle\nEnter Side1\nEnter

Side2\nEnter Side3\n");

scanf("%d %d %d ",&side1,&Side2,&side3);

printf("\na. Check whether a given set of three

numbers are lengths of an isosceles triangle or not");

printf("\nb. Check whether a given set of three numbers

are lengths of sides of a right angled triangle or not");

printf("\nc. Check whether a given set of three numbers

are equilateral triangle or not");

printf("\nd. Exit");

printf("\nEnter Your Choice");

scanf("%c",&c);

switch(c)

{

case 1:

if(side1==side2 || side1==side3 || side2==side3)

printf("This is an isosceles triangle.\n");

else

printf("This is not an isosceles triangle.\n");

break;

case b:

if((side1\*side1)+(side2\*side2)==(side3\*side3) ||

(side1\*side1)+(side3\*side3)==(side2\*side2) ||

(side2\*side2)+(side3\*side3)==(side1\*side1) )

printf("It is a right angle triangle!\n");

else

printf("It is Not a right angle triangle!\n");

break;

case c:

if(side1==side2 && side2==side3)

printf("This is an equilateral triangle.\n");

else

printf("This is Not an equilateral triangle.\n");

break;

case d:

exit (0);

}

return 0;

}

Q.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"); \*/

Ans:

switch(x)

{

case 1:

printf("good");

break;

case 2:

printf("better");

break;

case 3:

printf("best");

break;

case 4:

printf("best");

break;

default :

printf("invalid");

}

Q.6. Program to check whether a year is a leap year or

not. Using switch statement

Ans:

#include<stdio.h>

void main()

{

int n,y;

printf("Enter Year \n");

scanf("%d",&n);

y=n%100;

y= y%4==0;

switch(y)

{

case 1:

printf("%d Is A Leap Year",n);

break;

case 0:

printf("%d Is Not A Leap Year",n);

break;

default :

printf("Not A valid Year");

break;

}

}

Q.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.

Ans:

#include<stdio.h>

int main()

{

int unit;

float sum,subcharge;

printf("Enter Your Electricity Unit\n");

scanf("%d",&unit);

switch(1)

{

case 1:

if(unit>250)

{

sum=unit\*1.50;

break;

}

case 2:

if(unit>150 && unit<=250)

{

sum=unit\*1.20;

break;

}

case 3:

if(unit>50 && unit<=150)

{

sum=unit\*0.75;

break;

}

case 4:

if(unit>0 && unit<=50)

{

sum=unit\*0.50;

break;

}

default:

if(unit<=0)

printf("\nYou Are Not Enter Valid Electricity

unit\n\n");

}

subcharge=sum\*20/100;

sum=sum+subcharge;

printf("The Unit Is %d And The Electricity Bill Is

%f",unit,sum);

return 0;

}

Q.8. Program to convert a positive number into a

negative number and negative number into a

positive number using a switch statement.

Ans:

#include<stdio.h>

void main()

{

int n,p;

printf("Enter A Number ");

scanf("%d",&n);

p=n>2;

switch(p)

{

case 1:

p=n-2\*n;

printf("%d",p);

break;

case 0:

p=n+(-2\*n);

printf("%d",p);

break;

default :

printf("The GIven Number Is 0");

}

}

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

Ans:

#include<stdio.h>

int main()

{

int n,v;

printf("Enter An Even Number");

scanf("%d",&n);

if(n%2==0&&n!=0)

v=1;

else if(n%2!=0 || n==0)

v=0;

switch(v)

{

case 1:

n=n+1;

printf("Upper nearest Odd Number is %d",n);

break;

case 0:

printf("\nGiven Number Is Not Even Number\n");

}

}

Q.10. C program to find all roots of a quadratic

equation using switch case.

Ans:

#include<stdio.h>

#include<conio.h>

main()

{

int a,b,c,d;

printf("Enter Value Of a \n Enter Value of b\n Enter

Value Of c\n");

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

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

switch ()

{

case 1:

if(d>0)

printf("The Given Quadratic Equation Is Real

And Distinct");

case 2:

if(d==0)

printf("The Given Quadratic Equation Is Real

And Equal");

case 3:

if(d<0)

printf("The Given Quadratic Equation Is

Emaginary");

}