**ASSIGNMENT 9**

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**/\* to take the month number as input and display number of days in that month \*/**

**#Include<stdio.h>**

**void printnumber of days (int N)**

**{**

**switch (N)**

**{**

**case 1:**

**case 3:**

**case 5:**

**case 7:**

**case 8:**

**case 10:**

**case 12:**

**printf ("31 days");**

**break:**

**case 4:**

**case 6:**

**case 9:**

**case 11:**

**printf ("30 days");**

**break;**

**default:**

**printf ("Invalid month");**

**break;**

**}**

**}**

**int main()**

**{**

**int N;**

**printnumber of days (N);**

**return 0;**

**}**

**-------------------------------------------------------------------------------------------------------------------**

**/\* To a menu driven programm with the following option : addition, subtraction, multiplication, division, exit \*/**

**#Include<stdio.h>**

**void main()**

**{**

**int a,b,opt;**

**printf(enter first integer:");**

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

**printf(enter second integer:");**

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

**printf("\n Input your option: \n");**

**printf("1-Addition. \n 2-subtraction. \n3-Multiplication. \n4-Division. \n5-Exit. \n");**

**scanf("%d", &opt);**

**switch(opt)**

**{**

**case1:**

**printf(" The addition of %d and %d is : %d\n", a,b,a+b);**

**break;**

**case2:**

**printf(" The subtraction of %d and %d is : %d\n", a,b,a-b);**

**break;**

**case3:**

**printf(" The multiplication of %d and %d is : %d\n", a,b,a\*b);**

**break;**

**case4:**

**printf(" Exit ");**

**break;**

**default:**

**printf("Input correcet option \n");**

**break;**

**}**

**}**

**-------------------------------------------------------------------------------------------------------------------**

**/\* to take the day number of a week and display a unique greeting massage for the day \*/**

**# Include<stdio.h>**

**int main()**

**int day = 1;**

**switch (day)**

**{**

**case1 : Printf("Monday");**

**break;**

**case2 : Printf("Tuesday");**

**break;**

**case3 : Printf("Wednesday");**

**break;**

**case4 : Printf("Thrusday");**

**break;**

**case5 : Printf("Friday");**

**break;**

**case6 : Printf("Saturday");**

**break;**

**case7 : Printf("Sunday");**

**break;**

**default : Printf("Invalid");**

**}**

**return 0;**

**}**

**-------------------------------------------------------------------------------------------------------------------/\* to check Isosceles Tringle, Right angle triangle and Equilateral Triangle \*/**

**#Include<stdio.h>**

**int main()**

**{**

**int choice a,b,c;**

**printf("1. To check isoscees Triangle \n");**

**printf("2. To check right angle Triangle \n");**

**printf("3. To check Equilateral Triangle \n");**

**scanf("%d", &choice);**

**printf("Enter the length of 3 sides of Triangle \n");**

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

**switch(choice)**

**{**

**case1: if(a==b || b==c || c==a)**

**printf("Isosceles");**

**else**

**printf("Not Issosceles");**

**break;**

**case2: if(a\*\*==b\*b + c\*c || b\*b==c\*c + a\*a || c\*c==a\*a +b\*b)**

**printf("Right Triangle");**

**else**

**printf("Not Right Triangle");**

**break;**

**case 3: if((a==b) && (b==c))**

**printf("Equalilateral Triangle");**

**else**

**Printf("No Equalilateral Triangle");**

**break;**

**default: printf("Invalid");**

**}**

**return 0;**

**}**

**-------------------------------------------------------------------------------------------------------------------/\* To check the given year is leap year or Not \*/**

**#Include<stdio.h>**

**int main()**

**{**

**int x=2000;**

**switch(x%100==0)**

**{**

**case1: switch(x%400==0)**

**{**

**case1: leap year**

**break;**

**case0: not leap year**

**break;**

**}**

**break;**

**case0: switch(x%4)**

**{**

**case1: leap year;**

**case0: not leap year;**

**break;**

**}**

**}**

**-------------------------------------------------------------------------------------------------------------------/\*whether a year is a leap year or not using switch statement \*/**

**#Include<stdio.h>**

**int main()**

**{**

**int year,rem;**

**printf("enter year");**

**scanf("%d", &year);**

**rem=((year%4==0) && ((year % 400==0)|| (year % 100 ! = 0)));**

**switch(rem)**

**{**

**case1:**

**printf("leap year");**

**break;**

**case 0:**

**printf("Not leap year");**

**break;**

**default:**

**printf("Invalid");**

**break;**

**}**

**return 0;**

**}**

**-------------------------------------------------------------------------------------------------------------------/\* to calculate Electric bill\*/**

**#Include<stdio.h>**

**int main()**

**{**

**float x=24, amount=0, total =0;**

**switch(x<50)**

**{**

**case1: amount=x\*0.5;**

**break;**

**case0: switch(x<=15)**

**{**

**case1: amount=25 + (x-50)\*0.75;**

**break;**

**case0: switch(x<=250)**

**{**

**case1: amount=100+(x-150)\*1.20;**

**break;**

**case0: amount=220 + (x-250)\*1.5;**

**break;**

**}**

**break;**

**}**

**break;**

**}**

**total = amount + amount \* 0.20;**

**printf("Total amount = %f", total);**

**return 0;**

**}**

**-------------------------------------------------------------------------------------------------------------------/\* to convert a positive number into a negative number and A negative number iinto positive number \*/**

**#Include<stdio.h>**

**int main()**

**{**

**float number;**

**int choice;**

**printf("Enter number for negative to positive");**

**printf("Enter number for positive to negative");**

**scanf("%d", &choice);**

**switch(choice)**

**{**

**case1:**

**printf("Enter a negative number");**

**scanf("%d", number);**

**number = number \* (-1);**

**printf("Number");**

**break;**

**case2:**

**Printf("Enter a Positive number");**

**scanf("%d", &number);**

**number=number\*(-1;**

**printf("Negative form of the no is ", %n and);**

**printf("Number");**

**break;**

**default;**

**printf("Invalid");**

**}**

**}**

**------------------------------------------------------------------------------------------------------------------**

**/\* to convert even number into its upper nearest odd number using switch statement \*/**

**#Include<stdio.h>**

**int main()**

**{**

**int a, choice;**

**printf("Enter a number to be readoff to nearest odd or even");**

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

**switch(a%2==0)**

**{**

**case1:**

**printf("Ronded off to nearest upperodd");**

**printf("a+1");**

**break;**

**case0:**

**printf("Rounded off to nearest lower even");**

**printf("a-1");**

**break;**

**}**

**}**

**-------------------------------------------------------------------------------------------------------------------/\* to find all roots of a Quadratic Equation using Switch Case \*/**

**#Include<stdio..h>**

**int main()**

**{**

**float a,b,c;**

**float root1, root2, imaginary;**

**float discriminant;**

**printf("Enter values of a,b,c of Quadratic equation:");**

**scanf("%f %f %f", &a, &b, &c);**

**discriminant=(b\*b)-(4\*a\*c);**

**Switch(discrimimnant>0)**

**{**

**case1:**

**root1 = (-b+sqrt (discriminant)) /(2\*a);**

**root2 = (-b-sqrt (discriminant)) /(2\*a);**

**printf("Two distinct and real rooots exists : %2f and %2f", root1,root2);**

**break;**

**case0:**

**switch(discriminant<0)**

**{**

**case1:**

**root 1 = root 2 = -b/(2\*a);**

**imaginary = sqrt (-discrimimnant) / (2\*a);**

**printf("Two distinct complex roots exists : %2f + i % 2f and %2f - i %2f", root1, imaginary, root2, imaginary);**

**break;**

**case0:**

**root1 = root2 = -b / (2\*a);**

**printf("Two equal and real roots exists : %2f and %2f", root1, root2);**

**break;**

**}**

**}**

**return 0;**

**}**

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