Q1.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 argc, char \*argv[])

{

int num;

printf("Enter month number = ");

scanf("%d", &num);

switch (num)

{

case 1:

case 3:

case 5:

case 8:

case 10:

case 12:

{

printf("31 Days");

}

break;

case 2:

{

printf("28 or 29 Days");

}

break;

case 4:

case 6:

case 9:

case 11:

{

printf("30 Days");

}

break;

default:

{

printf("Wrong input");

}

}

return 0;

}

Q2.Write a menu driven program with the following options:

a.Addition

b.Subtraction

c.Multiplication

d.Division

e.Exit

#include <stdio.h>

#include <stdlib.h>

#include <conio.h>

int main(int argc, char \*argv[])

{

float a, b;

char choice;

while (1)

{

printf("a. Addition\n");

printf("b. Subtraction\n");

printf("c. Multiplication\n");

printf("d. Division\n");

printf("e. Exit\n\n");

fflush(stdin);

printf("Enter Choice = ");

scanf("%c", &choice);

if ((choice == 'a') || (choice == 'b') || (choice == 'c') || (choice == 'd'))

{

printf("Enter two values for operation = ");

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

}

switch (choice)

{

case 'a':

{

printf("Addition = %.2f\n\n", a + b);

}

break;

case 'b':

{

printf("Subtraction = %.2f\n\n", a - b);

}

break;

case 'c':

{

printf("Multiplication = %.2f\n\n", a \* b);

}

break;

case 'd':

{

printf("Division = %.2f\n\n", a / b);

}

break;

case 'e':

{

exit(1);

}

break;

default:

{

printf("Wrong input\n\n");

}

break;

}

}

return 0;

}

Q3. 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 argc, char \*argv[])

{

int day;

printf("Enter day number = ");

scanf("%d", &day);

switch (day)

{

case 1:

{

printf("This is your day !!! Enjoy Your Day !!!");

}

break;

case 2:

{

printf("Good Morning....This is Working Day");

}

break;

case 3:

{

printf("I hope you’re having a wonderful day");

}

break;

case 4:

{

printf("Dont worry Be happy");

}

break;

case 5:

{

printf("You are the brightest star on Earth.");

}

break;

case 6:

{

printf("Kick the negative energy out");

}

break;

case 7:

{

printf("This is the best day of the week.");

}

break;

default:

{

printf("wrong input");

}

break;

}

return 0;

}

Q4.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>

#include <stdlib.h>

#include <conio.h>

int main(int argc, char \*argv[])

{

char choice;

float a, b, c;

do

{

printf("a. Check isosceles triangle or not\n");

printf("b. Check right angled triangle or not\n");

printf("c. Check equilateral triangle or not\n");

printf("d. Exit\n\n");

fflush(stdin);

printf("Enter choice = ");

scanf("%c", &choice);

if ((choice == 'a') || (choice == 'b') || (choice == 'c'))

{

printf("Enter three values for triangle = ");

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

}

switch (choice)

{

case 'a':

{

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

{

printf("This is not isosceles triangle");

getch();

system("cls");

}

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

{

printf("This is isosceles triangle");

getch();

system("cls");

}

}

break;

case 'b':

{

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

{

printf("This is right angle triangle");

getch();

system("cls");

}

else

{

printf("This is not right angle triangle");

getch();

system("cls");

}

}

break;

case 'c':

{

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

{

printf("This is equilateral triangle");

getch();

system("cls");

}

else

{

printf("This is not equilateral triangle");

getch();

system("cls");

}

}

break;

case 'd':

{

exit(1);

}

break;

default:

{

printf("wrong input");

getch();

system("cls");

}

break;

}

} while (1);

return 0;

}

Q5.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 argc, char \*argv[])

{

int var;

printf("Enter input = ");

scanf("%d", &var);

switch (var)

{

case 1:

printf("good");

break;

case 2:

printf("better");

break;

case 3:

printf("best");

break;

default:

printf("invalid");

break;

}

return 0;

}

Q6.Program to check whether a year is a leap year or not. Using switchstatement

#include <stdio.h>

int main(int argc, char \*argv[])

{

int year, reminder;

printf("Enter year = ");

scanf("%d", &year);

switch (year % 4)

{

case 0:

printf("leap year");

break;

default:

printf("not a leap year");

break;

}

return 0;

}

Q7.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.

 float unit, charges = 0;

 int i; #include <stdio.h>

int main(int argc, char \*argv[])

{

    printf("Enter unit = ");

    scanf("%f", &unit);

    switch (unit <= 50)

    {

    case 1:

    {

        charges = unit \* 0.50;

    }

    break;

    case 0:

    {

        switch (unit <= 150)

        {

        case 1:

        {

            charges = 25 + ((unit - 50) \* 0.75);

        }

        break;

        case 0:

        {

            switch (unit <= 250)

            {

            case 1:

            {

                charges = 100 + ((unit - 150) \* 1.20);

            }

            break;

            case 0:

            {

                charges = 220 + ((unit - 250) \* 1.50);

            }

            break;

            }

        }

        break;

        }

    }

    break;

    }

    printf("Total charges = %.2f", ((20 \* charges) / 100)+charges);

    return 0;

}

Q8.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 argc, char \*argv[])

{

int num;

printf("Enter number = ");

scanf("%d", &num);

int i = num > 0;

switch (i)

{

case 1:

printf("number convert into negative = %d", num \* -1);

break;

case 0:

printf("number convert into positive = %d", num \* -1);

break;

default:

printf("invalid input");

break;

}

return 0;

}

Q9.Program to Convert even number into its upper nearest odd number using Switch Statement.

#include <stdio.h>

int main(int argc, char \*argv[])

{

int num;

printf("Enter number = ");

scanf("%d", &num);

int i = ((num % 2) ^ ((num > 0)&&(num!=0)));

switch (i)

{

case 0:

printf("Enter even number");

break;

case 1:

printf("nearest odd number = %d", num + 1);

break;

default:

printf("invalid input");

break;

}

return 0;

}

Q10.C program to find all roots of a quadratic equation using switch case

#include <stdio.h>

#include <math.h>

int main(int argc, char \*argv[])

{

int a, b, c, root1, root2, disc, i;

printf("Enter value of a, b, c = ");

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

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

if (disc > 0)

i = 0;

else if (disc == 0)

i = 1;

else

i = 2;

switch (i)

{

case 0:

{

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

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

printf("Roots are real and distinct\n");

printf("Root1 = %d\nRoot2 = %d", root1, root2);

}

break;

case 1:

{

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

printf("Both roots are equal\n");

printf("root1 and root2 = %d", root1);

}

break;

case 2:

{

printf("roots are imaginery");

}

break;

default:

{

printf("invalid input");

}

break;

}

return 0;

}