

Q.1. Write a C Program to Input Week number (1-7) and print the corresponding day of Week name using switch case.

```
#include <stdio.h>
int main () {
    int n;
    printf("Enter a number (1-7) to get the day of the\nWeek: ");
    scanf("%d", &n);
    switch(n) {
        Case 1: printf("Sunday");
                break;
        Case 2: printf("Monday");
                break;
        Case 3: printf("Tuesday");
                break;
        Case 4: printf("Wednesday");
                break;
        Case 5: printf("Thursday");
                break;
        Case 6: printf("Friday");
                break;
        Case 7: printf("Saturday");
                break;
    }
```

default :

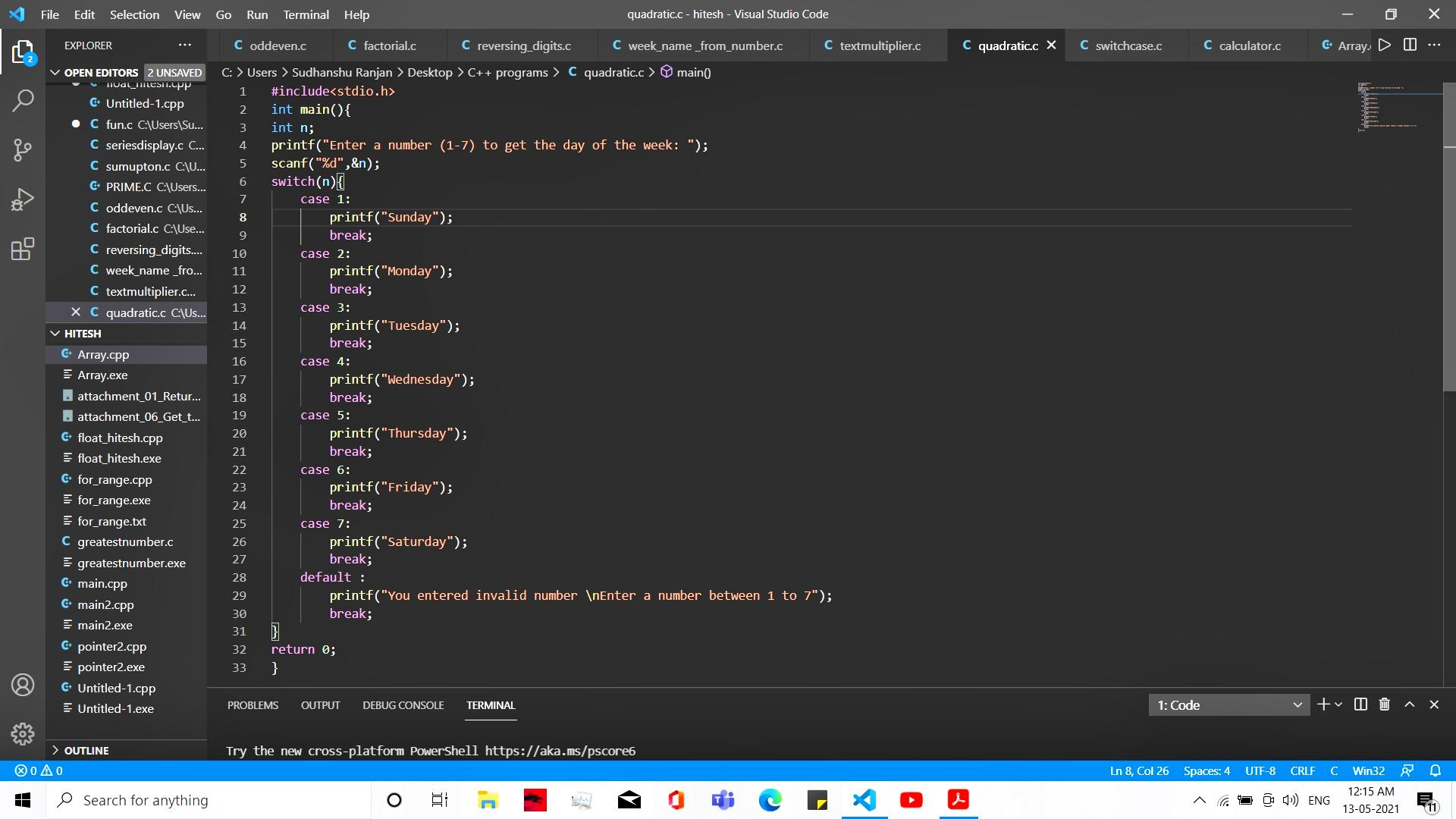
printf ("you entered invalid number \n Enter a
- number between 1 to 7");

break ;

}

return 0;

}



Ln 8, Col 26 Spaces: 4 UTF-8 CRLF C Win32

2. Write a 'C' language program to check whether it is vowel or consonant using switch-case statement.

```
#include <stdio.h>
int main () {
    char letter;
    printf ("Enter a letter to check whether it is
            vowel or consonant : ");
    scanf ("%c", &letter);
    getchar ();
    switch (letter) {
        case 'a':
        case 'e':
        case 'i':
        case 'o':
        case 'u':
            printf ("Letter is vowel.");
            break;
        default:
            printf ("Letter is consonant");
            break;
    }
    return 0;
}
```

2

EXPLORER

...

play.c

C sumupton.c

PRIME.C

oddeven.c

factorial.c

reversing_digits.c

textmultiplier.c

vowel_consonant.c

switchcase.c

calculat

2 UNSAVED

float_hitesh.cpp

Untitled-1.cpp

fun.c C:\Users\Su...

seriesdisplay.c C...

sumupton.c C\U...

PRIME.C C\Users...

oddeven.c C\Us...

factorial.c C\Use...

reversing_digits....

textmultiplier.c...

vowel_consonan...

switchcase.c C\...

HITESH

Array.cpp

Array.exe

attachment_01_Retur...

attachment_06_Get_t...

float_hitesh.cpp

float_hitesh.exe

for_range.cpp

for_range.exe

for_range.txt

greatestnumber.c

greatestnumber.exe

main.cpp

main2.cpp

main2.exe

pointer2.cpp

pointer2.exe

Untitled-1.cpp

Untitled-1.exe

OUTLINE

C: > Users > Sudhanshu Ranjan > Desktop > snake game > C vowel_consonant.c > main()

```
1 #include<stdio.h>
2 int main(){
3     char letter;
4     printf("Enter a letter to check whether it is vowel or consonant : ");
5     scanf("%c",&letter);
6     getchar();
7     switch (letter){
8         case 'a':
9         case 'e':
10        case 'i':
11        case 'o':
12        case 'u':
13            printf("Letter is vowel.");
14            break;
15        default :
16            printf("Letter is consonant");
17            break;
18    }
19    return 0;
20 }
```

PROBLEMS

OUTPUT

DEBUG CONSOLE

TERMINAL

1: Code

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PS D:\C++Full course\hitesh> cd "c:\Users\Sudhanshu Ranjan\Desktop\sake game\" ; if (\$?) { gcc vowel_consonant.c -o vowel_consonant } ; if (\$?) { .\vowel_consonant }

Enter a letter to check whether it is vowel or consonant : w

Letter is consonant

PS C:\Users\Sudhanshu Ranjan\Desktop\sake game> cd "c:\Users\Sudhanshu Ranjan\Desktop\sake game\" ; if (\$?) { gcc vowel_consonant.c -o vowel_consonant } ; if (\$?) { .\vowel_consonant }

Enter a letter to check whether it is vowel or consonant : u

Letter is vowel.

PS C:\Users\Sudhanshu Ranjan\Desktop\sake game> cd "c:\Users\Sudhanshu Ranjan\Desktop\sake game\" ; if (\$?) { gcc vowel_consonant.c -o vowel_consonant } ; if (\$?) { .\vowel_consonant }

Enter a letter to check whether it is vowel or consonant : a

Letter is vowel.

PS C:\Users\Sudhanshu Ranjan\Desktop\sake game>

0 0 0

Ln 14, Col 12

Spaces: 4

UTF-8

CRLF

C

Win32

12:27 AM

13-05-2021

Q. Write a 'c' language program to perform the multiple arithmetic operations using switch-case.

```
#include <stdio.h>
int main() {
    char operator;
    double a, b;
    printf("Enter first number : ");
    scanf("%lf", &a);
    printf("Enter second number : ");
    scanf("%lf", &b);
    fflush(stdin);
    printf("Enter an operator (+, -, *, /): ");
    scanf("%c", &operator);
    getchar();

    switch (operator) {
        case '+':
            printf("%.1lf + %.1lf = %.1lf\n", a, b, a+b);
            break;
        case '-':
            printf("%.1lf - %.1lf = %.1lf\n", a, b, a-b);
            break;
```

case '*':

```
printf("%.11f * %.11f = %.11f, a, b, a*b);  
break;
```

case '/':

```
printf("%.11f / %.11f = %.11f, a, b, a/b);  
break;
```

default :

```
printf("you selected invalid operator, Please ! select,  
appropriate operator \n");
```

```
}
```

```
return 0;
```

```
}
```


4. WAP in C to find all roots of a quadratic equation $(ax^2 + bx + c)$ using switch case,

```
#include <stdio.h>
#include <math.h>

int main () {
    int a, b, c;
    double d, firstroot, secondroot, imaginary;

    printf ("Enter the value of a, b, c in the form of the
    equation  $(ax^2 + bx + c)$  \n");

    printf ("Enter the value of a : \n");
    scanf ("%d", &a);

    printf ("Enter the value of b : \n");
    scanf ("%d", &b);

    printf ("Enter the value of c : \n");
    scanf ("%d", &c);

    d = ((b*b) - 4*a*c);

    printf ("Finding roots of a quadratic equation : \n");
    switch (d > 0) {
        case 1 :
            firstroot = ((-b) + sqrt(d)) / (2*a);
            secondroot = ((-b) - sqrt(d)) / (2*a);
            printf ("First root = %.2lf \n Second root =
            %.2lf", firstroot, secondroot);
```


break;

Case 0:

switch (d < 0) {

case 1:

real = $(-b) / (2 * a)$;

imaginary = $(\text{sqrt}(-d)) / (2 * a)$;

printf ("First root = %.2lf + %.2lf * i\n",
real, imaginary);

printf ("First root = %.2lf - %.2lf * i\n",

real, imaginary);
break;

case 0:

firstroot = $(-b) / (2 * a)$;

secondroot = $(-b) / (2 * a)$;

printf ("First root is %.2lf \n Second root is
%.2lf", firstroot, secondroot);

break;

}

break

}

return 0;

}



EXPLORER

...

seriesDisplay.c

PRIME.C

quadratic.c

oddeven.c

reversing_digits.c

textmultiplier.c

vowel_consonant.c

switchcase.c

Array

> OPEN EDITORS 3 UNSAVED

> HITESH

> OUTLINE

C: > Users > Sudhanshu Ranjan > Desktop > snake game > quadratic.c > ...

```
1  #include<stdio.h>
2  #include<math.h>
3  int main(){
4      int a,b,c;
5      double d,firstroot,secondroot,imaginary,real;
6      printf("Enter the value of a,b,c in the form of the equation (ax^2 + bx + c)\n");
7      printf("Enter the value of a : \n");
8      scanf("%d",&a);
9      printf("Enter the value of b : \n");
10     scanf("%d",&b);
11     printf("Enter the value of c : \n");
12     scanf("%d",&c);
13     d=((b*b) - 4*a*c);
14     printf("Finding roots of a quadratic equation :\n");
15     switch(d > 0){
16     case 1:
17         firstroot =( (-b) +sqrt(d)) / (2*a);
18         secondroot =( (-b) -sqrt(d)) / (2*a);
19         printf("First root = %.2lf \nSecond root = %.2lf",firstroot,secondroot);
20         break;
21     case 0:
22         switch(d < 0){
23         case 1:
24             real = (-b) / (2*a);
25             imaginary = (sqrt(-d)) / (2*a);
26             printf("First root = %.2lf +%.2lf i\n",real,imaginary);
27             printf("Second root = %.2lf -%.2lf i ",real,imaginary);
28             break;
29         case 0:
30             firstroot = (-b) / (2*a);
31             secondroot = (-b) / (2*a);
32             printf(" First root is %.2lf \nsecond root is %.2lf",firstroot,secondroot);
33             break;
34         }
35         break;
36     }
37     return 0;
38 }
```



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EXPLORER

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> OPEN EDITORS

3 UNSAVED

> HITESH

> OUTLINE

C seriesdisplay.c

PRIME.C

quadratic.c

oddeven.c

reversing_digits.c

textmultiplier.c

vowel_consonant.c

switchcase.c

Array

...

C: > Users > Sudhanshu Ranjan > Desktop > snake game > quadratic.c > ...

```
1 #include<stdio.h>
2 #include<math.h>
3 int main(){
4     int a,b,c;
5     double d,firstroot,secondroot,imaginary,real;
6     printf("Enter the value of a,b,c in the form of the equation (ax^2 + bx + c)\n");
7     printf("Enter the value of a : \n");
8     scanf("%d",&a);
9     printf("Enter the value of b : \n");
10    scanf("%d",&b);
11    printf("Enter the value of c : \n");
12    scanf("%d",&c);
13    d=((b*b) - 4*a*c);
14    printf("Finding roots of a quadratic equation :\n");
15    switch(d > 0){
16        case 1:
17            firstroot =( (-b) +sqrt(d)) / (2*a);
18            secondroot =( (-b) -sqrt(d)) / (2*a);
19            printf("First root = %.2lf \nSecond root = %.2lf",firstroot,secondroot);
20            break;
21    case 0:
```

PROBLEMS

OUTPUT

DEBUG CONSOLE

TERMINAL

1: Code

PS C:\Users\Sudhanshu Ranjan\Desktop\sna ke game>
PS C:\Users\Sudhanshu Ranjan\Desktop\sna ke game> cd "c:\Users\Sudhanshu Ranjan\Desktop\sna ke game\" ; if (\$?) { gcc quadratic.c -o quadratic } ; if (\$?) { .\quadratic }
Enter the value of a,b,c in the form of the equation (ax^2 + bx + c)
Enter the value of a :
4
Enter the value of b :
-2
Enter the value of c :
-10
Finding roots of a quadratic equation :
First root = 1.85
Second root = -1.35
PS C:\Users\Sudhanshu Ranjan\Desktop\sna ke game>

Ln 2, Col 17 Spaces: 3 UTF-8 CRLF C Win32

5. WAP in C to find whether a given number is even or odd using switch case.

```
#include <stdio.h>
```

```
int main() {
```

```
    int n;
```

```
    printf("Enter a number to find out if it is even  
or odd : ");
```

```
    scanf("%d", &n);
```

```
    switch (n == 0) {
```

```
        case 1:
```

```
            printf("The entered number is zero.");
```

```
            break;
```

```
        case 0:
```

```
            switch (n % 2 == 0) {
```

```
                case 1:
```

```
                    printf("The entered number is even.");
```

```
                    break;
```

```
                case 0:
```

```
                    printf("The entered number is odd.");
```

```
                    break;
```

```
            }
```

```
            break;
```

```
        }
```

```
        return 0;
```

```
    }
```




EXPLORER

...

fun.c

seriesdisplay.c

PRIME.C

odfun.c

reversing_digits.c

textmultiplier.c X

vowel_consonant.c

switchcase.c

Array.cpp

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> OPEN EDITORS 3 UNSAVED

> HITESH

> OUTLINE

C: > Users > Sudhanshu Ranjan > Desktop > snake game > C textmultiplier.c > main()

```
1  #include<stdio.h>
2  int main(){
3      int n;
4      printf("Enter a number to find out if it is even or odd : ");
5      scanf("%d",&n);
6      switch(n == 0){
7          case 1:
8              printf("The entered number is zero.");
9              break;
10         case 0:
11             switch(n % 2 == 0){
12                 case 1:
13                     printf("The entered number is even.");
14                     break;
15                 case 0:
16                     printf("The given number is odd.");
17                     break;
18             }
19             break;
20         }
21     return 0;
22 }
```



PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

1: Code

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Windows PowerShell

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Try the new cross-platform PowerShell <https://aka.ms/pscore6>

PS D:\C++Full course\hitesh> cd "c:\Users\Sudhanshu Ranjan\Desktop\sake game\" ; if (\$?) { gcc textmultiplier.c -o textmultiplier } ; if (\$?) { .\textmultiplier }

Enter a number to find out if it is even or odd : 2

The entered number is even.

PS C:\Users\Sudhanshu Ranjan\Desktop\sake game> cd "c:\Users\Sudhanshu Ranjan\Desktop\sake game\" ; if (\$?) { gcc textmultiplier.c -o textmultiplier } ; if (\$?) { .\textmultiplier }

Enter a number to find out if it is even or odd : 7

The given number is odd.

PS C:\Users\Sudhanshu Ranjan\Desktop\sake game> cd "c:\Users\Sudhanshu Ranjan\Desktop\sake game\" ; if (\$?) { gcc textmultiplier.c -o textmultiplier } ; if (\$?) { .\textmultiplier }

Enter a number to find out if it is even or odd : 0

The entered number is zero.

PS C:\Users\Sudhanshu Ranjan\Desktop\sake game> █

Ln 16, Col 45 Spaces: 8 UTF-8 CRLF C Win32