

# Assignment 2

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**F-24**

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**Question 1** – Write a program that reads a number between 1 to 7 from the user and display the day of the week from Monday to Sunday

**Code -**

```
//Q1
#include <stdio.h>

int main() {
    int n;
    scanf("%d", &n);
    if(n==1){
        printf("1st Day of the week is Monday");
    }
    else if(n==2){
        printf("2nd Day of the week is Tuesday");
    }
    else if(n==3){
        printf("3rd Day of the week is Wednesday");
    }
    else if(n==4){
        printf("4th Day of the week is Thursday");
    }
    else if(n==5){
        printf("5th Day of the week is Friday");
    }
    else if(n==6){
        printf("6th Day of the week is Saturday");
    }
}
```

```

else if(n==7){
    printf("7th Day of the week is Sunday");
}
else{
    printf("Wrong Input");
}
}

```

```

3
3rd Day of the week is Wednesday
-----
Process exited after 9.689 seconds with return value 32
Press any key to continue . . .

```

**Question 2 –** Make a simple calculator using a simple switch case

**Code –**

```

#include <stdio.h>

int main() {
    char operation;
    double n1, n2;

    printf("Enter an operator (+, -, *, /): ");
    scanf("%c", &operation);
    printf("Enter two operands: ");
    scanf("%lf %lf",&n1, &n2);

    switch(operation)
    {
        case '+':
            printf("%.1lf + %.1lf = %.1lf",n1, n2, n1+n2);
            break;

        case '-':

```

```

        printf("%.11f - %.11f = %.11f",n1, n2, n1-n2);
        break;

    case '*':
        printf("%.11f * %.11f = %.11f",n1, n2, n1*n2);
        break;

    case '/':
        printf("%.11f / %.11f = %.11f",n1, n2, n1/n2);
        break;

    default:
        printf("Error! operator is not correct");
}

return 0;
}

```

```

Enter an operator (+, -, *, /): +
Enter two operands: 3
8
3.0 + 8.0 = 11.0
-----
Process exited after 9.817 seconds with return value 0
Press any key to continue . . .

```

**Question 3** – Write a program to check whether the given year is a leap year or not.

**Code –**

//Q3

```

#include <stdio.h>

int main(){
    int year;
    scanf("%d", &year);
    if (year%4 == 0) {
        if (year%100==0){
            if (year%400==0){
                printf("Leap Year!");
            }
        }
    }
}

```

```

        }
        else{
            printf("Not a Leap Year");
        }
    }
    else {
        printf("Leap Year!");
    }
}
else{
    printf("Not a Leap Year");
}
}

```

```

1000
Not a Leap Year
-----
Process exited after 5.696 seconds with return value 15
Press any key to continue . . .

```

**Question 4** – Write a program to check whether a character is an alphabet or not.

**Code –**

```

#include <stdio.h>

int main(){
    char a;

    scanf("%c", &a);

    if ((a >= 65 && a <= 90) || (a >=97 && a <=122)){
        printf("Character!");
    }
    else{
        printf("Not a Character!");
    }
}

```

```

7
Not a Character!
-----
Process exited after 24.34 seconds with return value 16
Press any key to continue . . .

```

```
t
Character!
-----
Process exited after 2.336 seconds with return value 10
Press any key to continue . . .
```

**Question 5 –** Write a program to swap two numbers with and without using a temporary variable.

**Code –**

**PART I**

```
#include <stdio.h>

int main(){

    int a, b, c;

    printf("A is ");
    scanf("%d", &a);
    printf("B is ");
    scanf("%d", &b);

    c = b;
    b = a;
    a = c;

    printf("A is %d & B is %d", a, b);

}
```

```
A is 4
B is 5
A is 5 & B is 4
-----
Process exited after 7.304 seconds with return value 15
Press any key to continue . . .
```

**PART II**

```
#include <stdio.h>

int main(){

    int a, b;

    printf("A is ");
    scanf("%d", &a);
    printf("B is ");
    scanf("%d", &b);

    a = a + b;
```

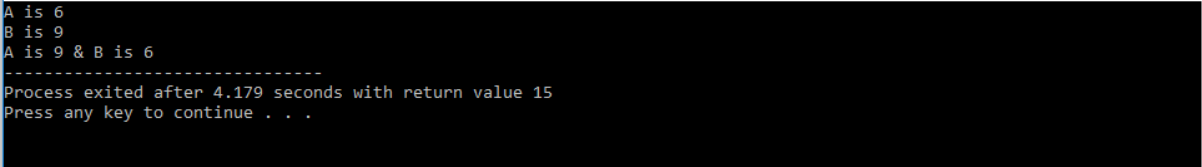
```

        b = a - b;

        a = a - b;

        printf("A is %d & B is %d", a, b);
    }

```



**Question 6** – Write a program to read a floating point number display the rightmost digit of an integral part of the number.

**Code –**

```

//Q6

#include <stdio.h>

int main(){

    float a;

    int b;

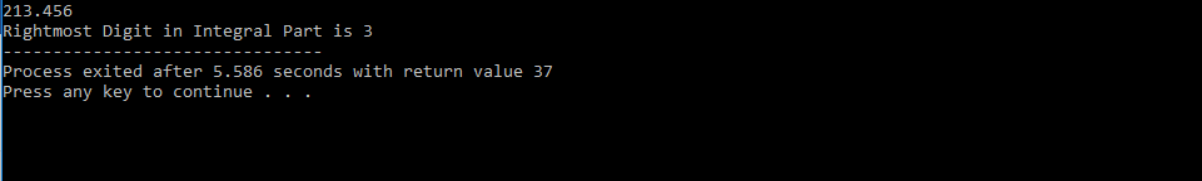
    scanf("%f", &a);

    b = a;

    printf("Rightmost Digit in Integral Part is %d", b%10);

}

```



**Question 7** – Write a program to check whether the number is odd or even.

**Code -**

```

//Q7

#include <stdio.h>

int main(){

    int a;

    scanf("%d", &a);

    if (a%2 == 0){

```

```

        printf("Even");
    }
    else{
        printf("Odd");
    }
}

```

```

56
Even
-----
Process exited after 2.474 seconds with return value 4
Press any key to continue . . .

```

```

21
Odd
-----
Process exited after 2.336 seconds with return value 3
Press any key to continue . . .

```

**Question 8 –** Write a program to check whether the number is positive or negative or zero.

**Code –**

```

#include <stdio.h>

int main(){
    int a;
    scanf("%d", &a);
    if (a > 0){
        printf("Positive");
    }
    else if(a==0){
        printf("Zero");
    }
    else{
        printf("Negative");
    }
}

```

```

90
Positive
-----
Process exited after 4.855 seconds with return value 8
Press any key to continue . . .

```

```
0
Zero
-----
Process exited after 2.689 seconds with return value 4
Press any key to continue . . .
```

```
-10
Negative
-----
Process exited after 2.376 seconds with return value 8
Press any key to continue . . .
```

**Question 9** – Write a program to check whether the triangle is equilateral, isosceles or scalene triangle.

**Code –**

```
#include <stdio.h>

int main(){

    int a, b, c;

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

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

        printf("Equilateral Triangle");

    }

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

        printf("Isosceles Triangle");

    }

    else {

        printf("Scalene Triangle");

    }

}
```

```
2 2 4
Isosceles Triangle
-----
Process exited after 5.336 seconds with return value 18
Press any key to continue . . .
```

```
2 2 2
Equilateral Triangle
-----
Process exited after 4.078 seconds with return value 20
Press any key to continue . . .
```



```
1 2 3
Scalene Triangle
-----
Process exited after 3.896 seconds with return value 16
Press any key to continue . . .
```

**Question 10** – Write a program that takes distance in inches and prints the corresponding value in cms (Note that 1 inch = 2.54cm)

**Code –**

```
#include <stdio.h>

int main(){

    float inch, cms;

    scanf("%f", &inch);

    cms = 2.54*inch;

    printf("%f inches to centimeters is %f cms", inch, cms);

}
```

```
5
5.000000 inches to centimeters is 12.700000 cms
-----
Process exited after 2.809 seconds with return value 47
Press any key to continue . . .
```

si