1.write a pgm to check whether a character is an alphabet digital or special character

```
#include <stdio.h>

int main() {
    char ch;

    // Input from user
    printf("Enter any character: ");
    scanf("%c", &ch);

    // Check conditions
    if ((ch >= 'A' && ch <= 'Z') || (ch >= 'a' && ch <= 'z')) {
        printf("It is an Alphabet.\n");
    }
    else if (ch >= '0' && ch <= '9') {
        printf("It is a Digit.\n");
    }
    else {
        printf("It is a Special Character.\n");
    }

    return 0;
}
```

Out put :

```
            Enter any character: A
It is an Alphabet.
Enter any character: 7
It is a Digit.
Enter any character: @
It is a Special Character.
```

2. Write a pgm to find given year is leap year or not

```
#include <stdio.h>

int main() {
    int year;

    // Input from user
    printf("Enter a year: ");
    scanf("%d", &year);
```

```
    // Check leap year condition
    if ((year % 400 == 0) || (year % 4 == 0 && year % 100 != 0)) {
        printf("%d is a Leap Year.\n", year);
    }
    else {
        printf("%d is Not a Leap Year.\n", year);
    }

    return 0;
}
```

Out put :

```
  Enter a year: 2024
2024 is a Leap Year.
Enter a year: 2023
2023 is Not a Leap Year.
Enter a year: 2000
2000 is a Leap Year.
```

3. Write a pgm to check whether an alphabet is a vowel or a constant

```
#include <stdio.h>

int main() {
    char ch;

    // Input from user
    printf("Enter an alphabet: ");
    scanf("%c", &ch);

    // Check if it is an alphabet
    if ((ch >= 'A' && ch <= 'Z') || (ch >= 'a' && ch <= 'z')) {

        // Check for vowels
        if (ch == 'A' || ch == 'E' || ch == 'I' || ch == 'O' || ch == 'U' ||
            ch == 'a' || ch == 'e' || ch == 'i' || ch == 'o' || ch == 'u')
       printf("%c is a Vowel.\n", ch);
        } else {
         printf("%c is a Consonant.\n", ch);
        }

    } else {
```

```
        printf("Invalid input! Please enter an alphabet.\n");
    }

    return 0;
}
```

Our put :

```
       Enter an alphabet: A
A is a Vowel.
Enter an alphabet: b
b is a Consonant.
Enter an alphabet: 5
Invalid input! Please enter an alphabet.
```

4. Write a pgm to read any day number in integer and display name in word format

```
#include <stdio.h>

int main() {
    int num, digit, rev = 0;

    // Input from user
    printf("Enter any integer: ");
    scanf("%d", &num);

    // If the number is negative, handle sign
    if (num < 0) {
        printf("minus ");
        num = -num;
    }

    // Reverse the number first to print words in correct order
    int temp = num;
    while (temp > 0) {
        rev = rev * 10 + temp % 10;
        temp /= 10;
    }

    // If user enters 0
    if (num == 0) {
        printf("zero");
    }

    // Extract each digit and print word
```

```
    while (rev > 0) {
        digit = rev % 10;
        switch (digit) {
            case 0: printf("zero "); break;
            case 1: printf("one "); break;
            case 2: printf("two "); break;
            case 3: printf("three "); break;
            case 4: printf("four "); break;
            case 5: printf("five "); break;
            case 6: printf("six "); break;
            case 7: printf("seven "); break;
            case 8: printf("eight "); break;
            case 9: printf("nine "); break;
        }
        rev /= 10;
    }

    printf("\n");
    return 0;
}
```

Out put :

```
       Enter any integer: 456
four five six
Enter any integer: -39
minus three nine
Enter any integer: -39
minus three nine
```

5. Write a pgm to check fallowing condition #include <stdio.h>

```
int main() {
    int num;

    // Input from user
    printf("Enter any number: ");
    scanf("%d", &num);

    // Check conditions
    if (num < 10 && num > -10) {
        printf("one digit\n");
    }
```

```
    else if ((num >= 10 && num < 100) || (num <= -10 && num > -100)) {
        printf("two digit\n");
    }
    else {
        printf("integer\n");
    }

    return 0;
}
```

Out put :

```
Enter any number: 7
one digit
Enter any number: 45
two digit
Enter any number: 123
integer
Enter any number: -6
one digit
```