1- Write a program to read an email address and extract the username and domain.

كتابة برنامج لقراءة عنوان البريد الإلكتروني واستخراج اسم المستخدم و domain.

Input

```
Email: info@gmail.tech
```

Output

```
Username: info
Domain: @gmail.tech
```

Solution

```c
// www.gammal.tech
#include<stdio.h>

int main() {
    char username[100], domain[100];

    printf("Email: ");
    scanf("%[^@]", username);
    scanf("%[^\n]", domain);

    printf("Username: %s\n", username);
    printf("Domain: %s\n", domain);

    return 0;
}
```

2- Write a program to read an email address, skip the '@' character, and extract the domain.

اكتب برنامجًا لقراءة عنوان البريد الإلكتروني وتخطي الحرف "@" واستخراج .domain

Input

```
Email: info@gammal.tech
```

Output

```
Username: info
Domain: gammal.tech
```

Solution

```c
// www.gammal.tech
#include<stdio.h>

int main() {
    char username[100], domain[100];

    printf("Email: ");
    scanf("%[^@]%*c%[^\n]", username, domain);

    printf("Username: %s\n", username);
    printf("Domain: %s\n", domain);

    return 0;
}
```

3- Write a program to read a full name followed by 'm' or 'f' and extract them.

اكتب برنامجاً لقراءة الاسم كاملاً متبوعاً بـ "m" أو "f" واستخرجهما.

Input

```
Enter full name followed by (m/f): john Doe
m
```

Output

```
Full Name: john Doe
Gender: m
```

Solution

```c
// www.gammal.tech
#include<stdio.h>

int main() {
    char name[100], gender;

    printf("Enter full name followed by (m/f): ");
    scanf("%[^\n]%*c%c", name, &gender);

    printf("\nFull Name: %s\nGender: %c\n", name, gender);

    return 0;
}
```

4- Write a program to read a sentence until a specified character and print it.

كتابة برنامج قراءة الجملة حتى حرف محدد وطباعتها.

Input

```
Enter a sentence (stop at specified character):
Hello world a Stop
```

Output

```
Sentence: Hello world a
```

Solution

```c
// www.gammal.tech
#include<stdio.h>

int main() {
    char sentence[300], stop_char;

    printf("Enter a sentence (stop at specified character): ");
    scanf("%[^STOP]%*c", sentence);

    printf("\nSentence: %s\n", sentence);

    return 0;
}
```

5- Write a program to read a paragraph until a specific word and print it.

كتابة برنامج لقراءة فقرة حتى كلمة معينة وطباعتها.

Input

```
Enter a paragraph (stop at specified word): Gammal tech 0
```

Output

```
Paragraph: Gammal tech
```

Solution

```c
// www.gammal.tech
#include<stdio.h>

int main() {
    char paragraph[500], stop_word[50];

    printf("Enter a paragraph (stop at specified word): ");
    scanf("%[^STOP]%*c", paragraph);

    printf("\nParagraph: %s\n", paragraph);

    return 0;
}
```

6- Write a program to read a line and print it in reverse order.

اكتب برنامجًا لقراءة سطر وطباعته بالترتيب العكسي.

Input

```
Enter a line: Gammal tech is the best
```

Output

```
Reversed Line: tseb eht si hcet lammaG
```

Solution

```c
// www.gammal.tech
#include<stdio.h>

int main() {
    char line[200];

    printf("Enter a line: ");
    scanf("%[^\n]", line);

    printf("\nReversed Line: ");
    for (int i = strlen(line) - 1; i >= 0; i--) {
        printf("%c", line[i]);
    }
    printf("\n");

    return 0;
}
```

7- Write a program to read a line and count the number of vowels in it.

اكتب برنامجًا لقراءة سطر وحساب عدد حروف vowels فيه.

Input

```
Enter a line: Hello World
```

Output

```
Number of Vowels: 3
```

Solution

```c
// www.gammal.tech
#include<stdio.h>

int main() {
    char line[200];
    int vowel_count = 0;

    printf("Enter a line: ");
    scanf("%[^\n]", line);

    for (int i = 0; line[i] != '\0'; i++) {
        if (tolower(line[i]) == 'a' || tolower(line[i]) == 'e' || tolower(line[i]) == 'i' ||
            tolower(line[i]) == 'o' || tolower(line[i]) == 'u') {
            vowel_count++;
        }
    }

    printf("\nNumber of Vowels: %d\n", vowel_count);

    return 0;
}
```

8- Write a program to read a line and replace all spaces with underscores.

اكتب برنامجًا لقراءة السطر واستبدال جميع المسافات ب underscores.

Input

```
Enter a line: Thes program reads a line
```

Output

```
Modified Line: Thes_program_reads_a_line
```

Solution

```c
// www.gammal.tech
#include<stdio.h>

int main() {
    char line[200];

    printf("Enter a line: ");
    scanf("%[^\n]", line);

    for (int i = 0; line[i] != '\0'; i++) {
        if (line[i] == ' ') {
            line[i] = '_';
        }
    }

    printf("\nModified Line: %s\n", line);

    return 0;
}
```

9- Write a program to read a line and extract the first word.

اكتب برنامجًا لقراءة سطر واستخراج الكلمة الأولى.

Input

```
Enter a line: Extract first word
```

Output

```
First Word: Extract
```

Solution

```c
// www.gammal.tech
#include<stdio.h>

int main() {
    char line[200], first_word[50];

    printf("Enter a line: ");
    scanf("%s", first_word);

    printf("\nFirst Word: %s\n", first_word);

    return 0;
}
```

10- Write a program to read a line and print the ASCII values of each character.

اكتب برنامجًا لقراءة سطر وطباعة قيم ASCII لكل حرف.

Input

```
Enter a line: read a line
```

Output

```
ASCII Values: 114 101 97 100 32 97 32 108 105 110 101
```

Solution

```c
// www.gammal.tech
#include<stdio.h>

int main() {
    char line[200];

    printf("Enter a line: ");
    scanf("%[^\n]", line);

    printf("\nASCII Values: ");
    for (int i = 0; line[i] != '\0'; i++) {
        printf("%d ", line[i]);
    }
    printf("\n");

    return 0;
}
```
