1- Write a program that takes an integer as input from the user and uses sprintf to convert it to a string.

اكتب برنامجًا يأخذ عددًا صحيحًا كمدخل من المستخدم ويستخدم sprintf لتحويله إلى سلسلة.

Input

```
Enter an integer: 159
```

Output

```
Converted String: 159
```

Solution

```c
// www.gammal.tech

#include <stdio.h>

int main() {
    int number;
    char str[20];

    printf("Enter an integer: ");
    scanf("%d", &number);

    sprintf(str, "%d", number);

    printf("Converted String: %s\n", str);

    return 0;
}
```

2- Write a program that takes an integer as input from the user and uses sprintf to format it as a hexadecimal number.

اكتب برنامجًا يأخذ عددًا صحيحًا كمدخل من المستخدم ويستخدم sprintf لتنسيقه كرقم سداسي عشري.

Input

```
Enter an integer: 255
```

Output

```
Hexadecimal: FF
```

Solution

```c
// www.gammal.tech

#include <stdio.h>

int main() {
    int decimalNumber;
    char hexString[20];

    printf("Enter an integer: ");
    scanf("%d", &decimalNumber);

    sprintf(hexString, "Hexadecimal: %X", decimalNumber);

    printf("%s\n", hexString);

    return 0;
}
```

3- Write a program that takes an integer and a string as input from the user and uses sprintf to concatenate them.

اكتب برنامجًا يأخذ عددًا صحيحًا وسلسلة كمدخلات من المستخدم ويستخدم sprintf لتسلسلهما.

Input

```
Enter your name: ahmed
Enter your age: 21
```

Output

```
Name: ahmed, Age: 21
```

Solution

```c
// www.gammal.tech

#include <stdio.h>

int main() {
    int age;
    char name[20];
    char result[30];

    printf("Enter your name: ");
    scanf("%s", name);

    printf("Enter your age: ");
    scanf("%d", &age);

    sprintf(result, "Name: %s, Age: %d", name, age);

    printf("%s\n", result);

    return 0;
}
```

4- Write a program that takes a long long integer as input from the user and uses sprintf to format it.

اكتب برنامجًا يأخذ long long integer كمدخل من المستخدم ويستخدم sprintf لتنسيقه.

Input

```
Enter a large number: 123456789101112
```

Output

```
Large Number: 123456789101112
```

Solution

```c
// www.gammal.tech

#include <stdio.h>

int main() {
    long long largeNumber;
    char formattedString[30];

    printf("Enter a large number: ");
    scanf("%lld", &largeNumber);

    sprintf(formattedString, "Large Number: %lld", largeNumber);

    printf("%s\n", formattedString);

    return 0;
}
```

5- Write a program that takes two strings as input from the user and uses sprintf to concatenate them.

اكتب برنامجًا يأخذ سلسلتين كمدخلات من المستخدم ويستخدم sprintf لربطهما.

Input

```
Enter the first string: Gammal
Enter the second string: Tech
```

Output

```
Concatenated String: GammalTech
```

Solution

```
// www.gammal.tech

#include <stdio.h>

int main() {
    char str1[20], str2[20], result[40];

    printf("Enter the first string: ");
    scanf("%s", str1);

    printf("Enter the second string: ");
    scanf("%s", str2);

    sprintf(result, "%s%s", str1, str2);

    printf("Concatenated String: %s\n", result);

    return 0;
}
```

6- Write a program that takes an integer and a string as input from the user and uses sprintf to format them.

اكتب برنامجًا يأخذ عددًا صحيحًا وسلسلة كمدخلات من المستخدم ويستخدم
sprintf لتنسيقهما.

Input

```
Enter an integer: 42
Enter a string: GammalTech
```

Output

```
Formatted: 42 GammalTech
```

Solution

```c
// www.gammal.tech

#include <stdio.h>

int main() {
    int num;
    char str[20], formattedString[40];

    printf("Enter an integer: ");
    scanf("%d", &num);

    printf("Enter a string: ");
    scanf("%s", str);

    sprintf(formattedString, "Formatted: %d %s", num, str);

    printf("%s\n", formattedString);

    return 0;
}
```

7- Write a program that takes a floating-point number as input from the user and uses sprintf to format it.

اكتب برنامجًا يأخذ floating-point number كمدخل من المستخدم ويستخدم sprintf لتنسيقه.

Input

```
Enter a floating-point number: 5.6
```

Output

```
Formatted: 5.60
```

Solution

```c
// www.gammal.tech

#include <stdio.h>

int main() {
    double num;
    char formattedString[20];

    printf("Enter a floating-point number: ");
    scanf("%lf", &num);

    sprintf(formattedString, "Formatted: %.2f", num);

    printf("%s\n", formattedString);

    return 0;
}
```

8- Write a program that takes two integers as input from the user and uses sprintf to format them.

اكتب برنامجًا يأخذ عددين صحيحين كمدخلات من المستخدم ويستخدم sprintf لتنسيقهما.

Input

```
Enter two integers: 5 7
```

Output

```
Formatted: 5 and 7
```

Solution

```c
// www.gammal.tech

#include <stdio.h>

int main() {
    int num1, num2;
    char formattedString[30];

    printf("Enter two integers: ");
    scanf("%d %d", &num1, &num2);

    sprintf(formattedString, "Formatted: %d and %d", num1, num2);

    printf("%s\n", formattedString);

    return 0;
}
```

9- Write a program that takes two integers and a string as input from the user and uses sprintf to format them.

اكتب برنامجًا يأخذ عددين صحيحين وسلسلة كمدخلات من المستخدم ويستخدم sprintf لتنسيقهما.

Input

```
Enter two integers: 5 9
Enter a string: GammalTech
```

Output

```
Formatted: 5, 9, GammalTech
```

Solution

```c
// www.gammal.tech

#include <stdio.h>

int main() {
    int num1, num2;
    char str[20];
    char formattedString[40];

    printf("Enter two integers: ");
    scanf("%d %d", &num1, &num2);

    printf("Enter a string: ");
    scanf("%s", str);

    sprintf(formattedString, "Formatted: %d, %d, %s", num1, num2, str);

    printf("%s\n", formattedString);

    return 0;
}
```

10- Write a program that takes a string as input from the user and uses sprintf to format it.

اكتب برنامجًا يأخذ سلسلة كمدخلات من المستخدم ويستخدم sprintf لتنسيقها.

Input

```
Enter a string: Hello
```

Output

```
Formatted: Hello
```

Solution

```c
// www.gammal.tech

#include <stdio.h>

int main() {
    char inputString[20];
    char formattedString[30];

    printf("Enter a string: ");
    scanf("%s", inputString);

    sprintf(formattedString, "Formatted: %s", inputString);

    printf("%s\n", formattedString);

    return 0;
}
```