

1- Write a program to read and print a line from the file "example.txt".

اكتب برنامجًا لقراءة وطباعة سطر من الملف "example.txt".

Input

```
example.txt  
1 This program reads and prints a line  
from a file using scanf.
```

Output

```
Line: This program reads and prints a line from  
a file using scanf.
```

Solution

```
// www.gammal.tech  
#include<stdio.h>  
  
int main() {  
    FILE *file = fopen("example.txt", "r");  
    char line[100];  
  
    if (file != NULL) {  
        fscanf(file, "%[^\n]", line);  
        printf("Line: %s\n", line);  
        fclose(file);  
    } else {  
        printf("File not found!\n");  
    }  
  
    return 0;  
}
```

2- Write a program to read an integer from the file "numbers.txt" and print it.

اكتب برنامجًا لقراءة عدد صحيح من الملف "numbers.txt" ثم قم بطباعته.

Input

```
numbers.txt  
1 1234
```

Output

```
Number: 1234
```

Solution

```
// www.gammal.tech  
#include<stdio.h>  
  
int main() {  
    FILE *file = fopen("numbers.txt", "r");  
    int num;  
  
    if (file != NULL) {  
        fscanf(file, "%d", &num);  
        printf("Number: %d\n", num);  
        fclose(file);  
    } else {  
        printf("File not found!\n");  
    }  
  
    return 0;  
}
```

3- Write a program to read a float from the file "float_data.txt" and print it.

اكتب برنامجًا لقراءة float من الملف "float_data.txt" ثم قم بطباعته.

Input

```
float_data.txt
1 5.65
```

Output

```
Float Number: 5.650000
```

Solution

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

int main() {
    FILE *file = fopen("float_data.txt", "r");
    float floatNum;

    if (file != NULL) {
        fscanf(file, "%f", &floatNum);
        printf("Float Number: %f\n", floatNum);
        fclose(file);
    } else {
        printf("File not found!\n");
    }

    return 0;
}
```

4- Write a program to read a character from the file "char_data.txt" and print it.

اكتب برنامجًا لقراءة حرف من الملف "char_data.txt" ثم قم بطباعته.

Input

```
char_data.txt
1 A
```

Output

```
Character: A
```

Solution

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

int main() {
    FILE *file = fopen("char_data.txt", "r");
    char character;

    if (file != NULL) {
        fscanf(file, " %c", &character);
        printf("Character: %c\n", character);
        fclose(file);
    } else {
        printf("File not found!\n");
    }

    return 0;
}
```

5- Write a program to read an integer from the file "integer_input.txt" and print its square.

اكتب برنامجًا لقراءة عدد صحيح من الملف "integer_input.txt" وطباعة مربعه.

Input

```
integer_input.txt
1 5
```

Output

```
Square of 5: 25
```

Solution

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

int main() {
    FILE *file = fopen("integer_input.txt", "r");
    int num;

    if (file != NULL) {
        fscanf(file, "%d", &num);
        int square = num * num;
        printf("Square of %d: %d\n", num, square);
        fclose(file);
    } else {
        printf("File not found!\n");
    }

    return 0;
}
```

6- Write a program to read two integers from the file "integers.txt" and print their sum.

اكتب برنامجًا لقراءة عددين صحيحين من الملف "integers.txt" وطباعة مجموعهما.

Input

```
integers.txt
1 5 6
```

Output

```
Sum of 5 and 6: 11
```

Solution

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

int main() {
    FILE *file = fopen("integers.txt", "r");
    int num1, num2;

    if (file != NULL) {
        fscanf(file, "%d %d", &num1, &num2);
        int sum = num1 + num2;
        printf("Sum of %d and %d: %d\n", num1, num2, sum);
        fclose(file);
    } else {
        printf("File not found!\n");
    }

    return 0;
}
```

7- Write a program to read a string (up to 50 characters) from the file "string_input.txt" and print it.

اكتب برنامجًا لقراءة سلسلة (حتى 50 حرفًا) من الملف "string_input.txt" ثم قم بطباعته.

Input

```
≡ string_input.txt  
1 This program reads a string
```

Output

```
String read from file: This program reads a string
```

Solution

```
// www.gammal.tech  
#include<stdio.h>  
  
int main() {  
    FILE *file = fopen("string_input.txt", "r");  
    char str[51]; // Assuming maximum length is 50 characters  
  
    if (file != NULL) {  
        fscanf(file, "%[^\n]", str);  
        printf("String read from file: %s\n", str);  
        fclose(file);  
    } else {  
        printf("File not found!\n");  
    }  
  
    return 0;  
}
```

8- Write a program to read two floating-point numbers from the file "float_input.txt" and print their product.

اكتب برنامجًا لقراءة two floating-point من الملف "float_input.txt" وطباعة منتجتهما.

Input

```
float_input.txt
1 5.3 6.9
```

Output

```
Product of 5.30 and 6.90: 36.57
```

Solution

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

int main() {
    FILE *file = fopen("float_input.txt", "r");
    float num1, num2;

    if (file != NULL) {
        fscanf(file, "%f %f", &num1, &num2);
        float product = num1 * num2;
        printf("Product of %.2f and %.2f: %.2f\n", num1, num2, product);
        fclose(file);
    } else {
        printf("File not found!\n");
    }

    return 0;
}
```


9- Write a program to read an integer and a character from the file "int_char_input.txt" and print them.

اكتب برنامجًا لقراءة عدد صحيح وحرف من الملف "int_char_input.txt" ثم قم بطباعتهما.

Input

```
int_char_input.txt
1 50 A
```

Output

```
Integer: 50
Character: A
```

Solution

```
// www.gammat.tech
#include<stdio.h>

int main() {
    FILE *file = fopen("int_char_input.txt", "r");
    int num;
    char ch;

    if (file != NULL) {
        fscanf(file, "%d %c", &num, &ch);
        printf("Integer: %d\nCharacter: %c\n", num, ch);
        fclose(file);
    } else {
        printf("File not found!\n");
    }

    return 0;
}
```

10- Write a program to read an integer from the file "positive_integer.txt" and check if it is positive.

اكتب برنامجًا لقراءة عدد صحيح من الملف "positive_integer.txt" والتحقق مما إذا كان موجبًا.

Input

```
positive_integer.txt  
1 -56
```

Output

```
-56 is not a positive integer.
```

Solution

```
// www.gammal.tech  
#include<stdio.h>  
  
int main() {  
    FILE *file = fopen("positive_integer.txt", "r");  
    int num;  
  
    if (file != NULL) {  
        fscanf(file, "%d", &num);  
  
        if (num > 0) {  
            printf("%d is a positive integer.\n", num);  
        } else {  
            printf("%d is not a positive integer.\n", num);  
        }  
  
        fclose(file);  
    } else {  
        printf("File not found!\n");  
    }  
  
    return 0;  
}
```