1- Write a program that prompts the user to enter their name and stores it in a character array x. Use scanf to read the input. After reading the name, print a message welcoming the user with their entered name.

اكتب برنامجًا يطلب من المستخدم إدخال اسمه ويخزنه في مصفوفة أحرف x. استخدم scanf لقراءة المدخلات. بعد قراءة الاسم، قم بطباعة رسالة ترحب بالمستخدم مع الاسم الذي أدخله.

Input

```
Enter your name: amr
```

Output

```
Welcome, amr!
```

Solution

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

int main() {
    // Declare a character array to store the name
    char x[10];

    // Prompt the user to enter their name
    printf("Enter your name: ");

    // Read the name using scanf
    scanf("%s", x);

    // Print a welcome message with the entered name
    printf("Welcome, %s!\n", x);

    return 0;
}
```

2- Write a program that prompts the user to enter two names and stores them in a 2D character array x. Use scanf to read the input. After reading each name, print a welcome message for each user with their entered name. Do not use loops (for, while, etc.) in the solution.

اكتب برنامجًا يطلب من المستخدم إدخال اسمين ويخزنهما في 2D character array x. استخدم scanf لقراءة المدخلات. بعد قراءة كل اسم، قم بطباعة رسالة ترحيب لكل مستخدم باسمه الذي أدخله. لا تستخدم الحلقات (for, while, etc.) في الحل.

Input

```
Enter the first name: ahmed
Enter the second name: aly
```

Output

```
Welcome, ahmed!

Welcome, aly!
```

Solution

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

int main() {
    // Declare a 2D character array to store names
    char x[2][10];

    // Prompt the user to enter the first name
    printf("Enter the first name: ");

    // Read the first name using scanf
    scanf("%s", x[0]);


    // Prompt the user to enter the second name
    printf("Enter the second name: ");

    // Read the second name using scanf
    scanf("%s", x[1]);

    // Print a welcome message with the entered first name
    printf("\nWelcome, %s!\n", x[0]);
    // Print a welcome message with the entered second name
    printf("\nWelcome, %s!\n", x[1]);

    return 0;
}
```

3- Write a program that prompts the user to enter two names and stores them in a 2D character array x. Use scanf to read the input. After reading both names, compare the names using strcmp and print "true" if they are equal and "false" if they are not equal. Do not use loops (for, while, etc.) in the solution.

اكتب برنامجًا يطلب من المستخدم إدخال اسمين ويخزنهما في 2D character array x. استخدم scanf لقراءة المدخلات. بعد قراءة كلا الاسمين، قارن بين الاسمين باستخدام strcmp واطبع "صحيح" إذا كانا متساويين و"خطأ" إذا لم يكونا متساويين. لا تستخدم الحلقات (for, while, etc.) في الحل.

Input

```
Enter the first name: aly
Enter the second name: aly
```

Output

```
true
```

Solution

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

int main() {
    // Declare a 2D character array to store names
    char x[2][10];

    // Prompt the user to enter the first name
    printf("Enter the first name: ");

    // Read the first name using scanf
    scanf("%s", x[0]);

    // Prompt the user to enter the second name
    printf("Enter the second name: ");

    // Read the second name using scanf
    scanf("%s", x[1]);

    // Compare the names using strcmp
    if(strcmp(x[0], x[1]) == 0)
        printf("\ntrue\n");
    else
        printf("\nfalse\n");

    return 0;
}
```

4- Write a program that prompts the user to enter two names and stores them in a 2D character array x. Use scanf to read the input. After reading both names, copy the contents of the second name into the first name using strcpy and then print the updated content of the first name. Do not use loops (for, while, etc.) in the solution.

اكتب برنامجًا يطلب من المستخدم إدخال اسمين ويخزنهما في 2D character array x. استخدم scanf لقراءة المدخلات. بعد قراءة كلا الاسمين، انسخ محتويات الاسم الثاني إلى الاسم الأول باستخدام strcpy ثم قم بطباعة المحتوى المحدث للاسم الأول. لا تستخدم الحلقات (for, while, etc.) في الحل.

Input

```
Enter the first name: ahmed
Enter the second name: aly
```

Output

```
aly
```

Solution

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

int main() {
    // Declare a 2D character array to store names
    char x[2][10];

    // Prompt the user to enter the first name
    printf("Enter the first name: ");

    // Read the first name using scanf
    scanf("%s", x[0]);

    // Prompt the user to enter the second name
    printf("Enter the second name: ");

    // Read the second name using scanf
    scanf("%s", x[1]);

    // Copy the contents of the second name into the first name using strcpy
    strcpy(x[0], x[1]);

    // Print the updated content of the first name
    printf("%s\n", x[0]);

    return 0;
}
```

5- Write a program that prompts the user to enter two names and stores them in a 2D character array x. Use scanf to read the input. After reading both names, concatenate the contents of the second name to the first name using strcat and then print the updated content of the first name. Do not use loops (for, while, etc.) in the solution.

اكتب برنامجًا يطلب من المستخدم إدخال اسمين ويخزنهما في 2D character array x. استخدم scanf لقراءة المدخلات. بعد قراءة كلا الاسمين، قم بربط محتويات الاسم الثاني بالاسم الأول باستخدام strcat ثم قم بطباعة المحتوى المحدث للاسم الأول.لا تستخدم الحلقات (for, while, etc.) في الحل.

Input

```
Enter the first name: amr
Enter the second name: aly
```

Output

```
amraly
```

Solution

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

int main() {
    // Declare a 2D character array to store names
    char x[2][10];

    // Prompt the user to enter the first name
    printf("Enter the first name: ");

    // Read the first name using scanf
    scanf("%s", x[0]);

    // Prompt the user to enter the second name
    printf("Enter the second name: ");

    // Read the second name using scanf
    scanf("%s", x[1]);

    // Concatenate the contents of the second name to the first name using strcat
    strcat(x[0], x[1]);

    // Print the updated content of the first name
    printf("%s\n", x[0]);

    return 0;
}
```

6- Write a program that uses a loop to prompt the user to enter their name four times. Store each name in a different row of a 2D character array x. After reading all four names, print each name on a new line.

اكتب برنامجًا يستخدم حلقة لمطالبة المستخدم بإدخال اسمه أربع مرات. قم بتخزين كل اسم في صف مختلف من 2D character array x. بعد قراءة الأسماء الأربعة، قم بطباعة كل اسم على سطر جديد.

Input

```
Enter your name: john
Enter your name: jana
Enter your name: Bob
Enter your name: Alice
```

Output

```
john
jana
Bob
Alice
```

Solution

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

int main() {
    // Declare a 2D character array to store names
    char x[4][10];

    // Loop to prompt the user to enter their name four times
    for (int i = 0; i < 4; i++) {
        printf("Enter your name: ");
        scanf("%s", x[i]);
    }

    // Loop to print each name on a new line
    for (int i = 0; i < 4; i++) {
        printf("%s\n", x[i]);
    }

    return 0;
}
```

7- Write a program that uses a loop to prompt the user to enter their name and age four times. Store each name in a different row of a 2D character array name and each age in a separate integer array age. After reading all four names and ages, print each name along with its corresponding age on a new line.

اكتب برنامجًا يستخدم حلقة لمطالبة المستخدم بإدخال اسمه وعمره أربع مرات. قم بتخزين كل اسم في صف مختلف من 2D character array name وكل عمر في عمر array أعداد صحيحة منفصلة. بعد قراءة الأسماء والأعمار الأربعة، قم بطباعة كل اسم مع عمره المناسب على سطر جديد.

Input

```
Enter your name: john
Enter your age: 15
Enter your name: jana
Enter your age: 18
Enter your name: Alice
Enter your age: 12
Enter your name: Bob
Enter your age: 20
```

Output

```
john, age: 15
jana, age: 18
Alice, age: 12
Bob, age: 20
```

Solution

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

int main() {
    // Declare a 2D character array to store names
    char name[4][10];

    // Declare an integer array to store ages
    int age[4];

    // Loop to prompt the user to enter their name and age four times
    for (int i = 0; i < 4; i++) {
        printf("Enter your name: ");
        scanf("%s", name[i]);

        printf("Enter your age: ");
        scanf("%d", &age[i]);
    }

    // Loop to print each name along with its corresponding age on a new line
    for (int i = 0; i < 4; i++) {
        printf("%s, age: %d\n", name[i], age[i]);
    }

    return 0;
}
```

8- Write a program that uses a loop to prompt the user to enter their name and degree four times. Store each name in a different row of a 2D character array name and each degree in a separate integer array degree. After reading all four names and degrees, print each name along with its corresponding degree on a new line.

اكتب برنامجًا يستخدم حلقة لمطالبة المستخدم بإدخال اسمه ودرجته أربع مرات. قم بتخزين كل اسم في صف مختلف من 2D character array name وكل درجة في درجة مصفوفة أعداد صحيحة منفصلة. بعد قراءة الأسماء والدرجات الأربعة، قم بطباعة كل اسم مع الدرجة المقابلة له على سطر جديد.

Input

```
Enter your name: john
Enter your degree: 70
Enter your name: jana
Enter your degree: 58
Enter your name: Alice
Enter your degree: 90
Enter your name: Bob
Enter your degree: 95
```

Output

```
john, degree: 70
jana, degree: 58
Alice, degree: 90
Bob, degree: 95
```

Solution

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

int main() {
    // Declare a 2D character array to store names
    char name[4][10];

    // Declare an integer array to store degrees
    int degree[4];

    // Loop to prompt the user to enter their name and degree four times
    for (int i = 0; i < 4; i++) {
        printf("Enter your name: ");
        scanf("%s", name[i]);

        printf("Enter your degree: ");
        scanf("%d", &degree[i]);
    }

    // Loop to print each name along with its corresponding degree on a new line
    for (int i = 0; i < 4; i++) {
        printf("%s, degree: %d\n", name[i], degree[i]);
    }

    return 0;
}
```

9- Write a program that uses a loop to prompt the user to enter their name and degree four times. Store each name in a different row of a 2D character array name and each degree in a separate integer array degree. After reading all four names and degrees, print only those names along with their corresponding degrees where the degree is greater than 90.

اكتب برنامجًا يستخدم حلقة لمطالبة المستخدم بإدخال اسمه ودرجته أربع مرات. قم بتخزين كل اسم في صف مختلف من 2D character array name وكل درجة في درجة مصفوفة أعداد صحيحة منفصلة. بعد قراءة الأسماء والدرجات الأربعة، اطبع فقط تلك الأسماء مع الدرجات المقابلة لها حيث تكون الدرجة أكبر من 90.

Input

```
Enter your name: ahmed
Enter your degree: 95
Enter your name: aly
Enter your degree: 91
Enter your name: amr
Enter your degree: 80
Enter your name: mahmoud
Enter your degree: 95
```

Output

```
Names with degrees greater than 90:
ahmed, degree: 95
aly, degree: 91
mahmoud, degree: 95
```

Solution

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

int main() {
    // Declare a 2D character array to store names
    char name[4][10];

    // Declare an integer array to store degrees
    int degree[4];

    // Loop to prompt the user to enter their name and degree four times
    for (int i = 0; i < 4; i++) {
        printf("Enter your name: ");
        scanf("%s", name[i]);

        printf("Enter your degree: ");
        scanf("%d", &degree[i]);
    }

    // Loop to print only those names along with their corresponding degrees where the degree is
 greater than 90
    printf("Names with degrees greater than 90:\n");
    for (int i = 0; i < 4; i++) {
        if (degree[i] > 90) {
            printf("%s, degree: %d\n", name[i], degree[i]);
        }
    }

    return 0;
}
```

10- Write a program that prompts the user to enter the names and degrees of four individuals. After receiving the input, the program should analyze the degrees and print a message for each individual. If the degree is greater than 90, the program should print "great," otherwise, it should print "try again."

اكتب برنامجاً يطلب من المستخدم إدخال أسماء ودرجات أربعة أفراد. بعد تلقي المدخلات، يجب على البرنامج تحليل الدرجات وطباعة رسالة لكل فرد. إذا كانت الدرجة أكبر من 90، فيجب على البرنامج طباعة "عظيم"، وإلا فعليه طباعة "حاول مرة أخرى".

Input

```
Enter the name of individual 1: mohammed
Enter the degree of mohammed: 93
Enter the name of individual 2: adel
Enter the degree of adel: 80
Enter the name of individual 3: menna
Enter the degree of menna: 95
Enter the name of individual 4: aly
Enter the degree of aly: 100
```

Output

```
Degree Analysis:
mohammed, degree: 93 --> great
adel, degree: 80 --> try again
menna, degree: 95 --> great
aly, degree: 100 --> great
```

Solution

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

int main() {
    // Declare a 2D character array to store names
    char name[4][10];

    // Declare an integer array to store degrees
    int degree[4];

    // Loop to prompt the user to enter their name and degree four times
    for (int i = 0; i < 4; i++) {
        printf("Enter the name of individual %d: ", i + 1);
        scanf("%s", name[i]);

        printf("Enter the degree of %s: ", name[i]);
        scanf("%d", &degree[i]);
    }

    // Print the analysis of degrees
    printf("\nDegree Analysis:\n");
    for (int i = 0; i < 4; i++) {
        if (degree[i] > 90) {
            printf("%s, degree: %d --> great\n", name[i], degree[i]);
        } else {
            printf("%s, degree: %d --> try again\n", name[i], degree[i]);
        }
    }

    return 0;
}
```