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1- Write a program that allows the user to input contact information (name and number) and appends it to a file named "contact.txt." The program should then read and display all existing contacts from the file.

اكتب برنامجًا يسمح للمستخدم بإدخال معلومات الاتصال (الاسم والرقم) وإلحاقه بملف يسمى "contact.txt". يجب على البرنامج بعد ذلك قراءة وعرض جميع جهات الاتصال الموجودة من الملف.

Input

```
Enter name: ahmed
Enter number: 0123456789
```

Output

contact.txt

```
1    ahmed  0123456789
```

Solution

```c
// www.gammal.tech

#include <stdio.h>

int main() {
    char name[100], number[100];
    FILE* contact = fopen("contact.txt", "a+");

    char ch;
    while (fscanf(contact, "%c", &ch) != EOF)
        printf("%c", ch);

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

    printf("Enter number: ");
    scanf("%s", number);

    fprintf(contact, "%s %s\n", name, number);
    fclose(contact);

    return 0;
}
```

2- Create a program that reads contact information from "contact.txt" and prints only the names.

قم بإنشاء برنامج يقرأ معلومات الاتصال من "contact.txt" ويطبع الأسماء فقط.

Input

contact.txt

```
1    ahmed 0123456
2    aly 01365478
```

Output

```
Name: ahmed
Name: aly
```

Solution

```c
// www.gammal.tech

#include <stdio.h>

int main() {
    FILE* contact = fopen("contact.txt", "r");

    char name[100], number[100];

    while (fscanf(contact, "%s %s", name, number) != EOF) {
        printf("Name: %s\n", name);
    }

    fclose(contact);

    return 0;
}
```

3- Create a program that reads contact information from "contact.txt" and prints only the numbers.

قم بإنشاء برنامج يقرأ معلومات الاتصال من "contact.txt" ويطبع الأرقام فقط.

Input

```
contact.txt
1    ahmed 0123456789
2    aly 0118945623
```

Output

```
Number: 0123456789
Number: 0118945623
```

Solution

```c
// www.gammal.tech

#include <stdio.h>

int main() {
    FILE* contact = fopen("contact.txt", "r");

    char name[100], number[100];

    while (fscanf(contact, "%s %s", name, number) != EOF) {
        printf("Number: %s\n", number);
    }

    fclose(contact);

    return 0;
}
```

4- Write a program that allows the user to search for a specific contact by entering a name. If the contact is found, display the corresponding number; otherwise, print a message indicating that the contact is not found.

كتابة برنامج يسمح للمستخدم بالبحث عن جهة اتصال معينة عن طريق إدخال اسم.
إذا تم العثور على جهة الاتصال، قم بعرض الرقم المقابل؛ وإلا، قم بطباعة رسالة
تشير إلى عدم العثور على جهة الاتصال.

Input

```
≡  contact.txt

  1    Omar 0123456789
  2    aly 01145679812
  3    ahmed 015232323
```

Input & Output

```
Enter name to search: aly
Contact found! Number: 01145679812
```

5- Create a program that clears all existing contacts from "contact.txt."

قم بإنشاء برنامج يقوم بمسح كافة جهات الاتصال الموجودة من "contact.txt".

Input

Output

```
All contacts cleared.
```

Solution

```c
// www.gammal.tech

#include <stdio.h>

int main() {
    FILE* contact = fopen("contact.txt", "w");
    fclose(contact);

    printf("All contacts cleared.\n");

    return 0;
}
```

6- Write a program that reads contact information from "contact.txt" and prints both names and numbers side by side.

اكتب برنامجًا يقرأ معلومات الاتصال من "contact.txt" ويطبع الأسماء والأرقام جنبًا إلى جنب.

Input

contact.txt

```
1    Alice 0123456789
2    Menna 0222222222
3    aly   0123789465
```

Output

```
Name: Alice, Number: 0123456789
Name: Menna, Number: 0222222222
Name: aly, Number: 0123789465
```

Solution

```c
// www.gammal.tech

#include <stdio.h>

int main() {
    FILE* contact = fopen("contact.txt", "r");

    char name[100], number[100];

    while (fscanf(contact, "%s %s", name, number) != EOF) {
        printf("Name: %s, Number: %s\n", name, number);
    }

    fclose(contact);

    return 0;
}
```

7- Write a program that reads contact information from "contact.txt" and prints the total number of contacts in the file.

اكتب برنامجًا يقرأ معلومات جهة الاتصال من "contact.txt" ويطبع العدد الإجمالي لجهات الاتصال في الملف.

Input

contact.txt

```
1    Alice 0123456789
2    Adel 0111111111
3    mohammad 015999999
```

Output

```
Total number of contacts: 3
```

Solution

```c
// www.gammal.tech

#include <stdio.h>

int main() {
    FILE* contact = fopen("contact.txt", "r");

    char name[100], number[100];
    int contactCount = 0;

    while (fscanf(contact, "%s %s", name, number) != EOF) {
        contactCount++;
    }

    fclose(contact);

    printf("Total number of contacts: %d\n", contactCount);

    return 0;
}
```

8- Write a program that reads contact information from "contact.txt" and prints the contacts whose names start with a specific letter entered by the user.

كتابة برنامج يقرأ معلومات الاتصال من "contact.txt" ويطبع جهات الاتصال التي تبدأ أسماؤها بحرف معين يدخله المستخدم.

Input

contact.txt

```
1    menna 0123456789
2    ahmed 0111111111
3    AbdulRahman 0122222222
```

Input & Output

```
Enter the starting letter for contacts: A
Name: ahmed, Number: 0111111111
Name: AbdulRahman, Number: 0122222222
```

Solution

```c
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#include <stdio.h>

int main() {
    FILE* contact = fopen("contact.txt", "r");

    char name[100], number[100], searchLetter;

    printf("Enter the starting letter for contacts: ");
    scanf(" %c", &searchLetter);

    while (fscanf(contact, "%s %s", name, number) != EOF) {
        if (name[0] == searchLetter || name[0] == searchLetter + 32) {
            printf("Name: %s, Number: %s\n", name, number);
        }
    }

    fclose(contact);

    return 0;
}
```

9- Create a program that allows the user to input a name and number and appends it to a file named "simple_contacts.txt."

قم بإنشاء برنامج يسمح للمستخدم بإدخال اسم ورقم وإلحاقه بملف يسمى
"simple_contacts.txt".

Input & Output

```
Enter name: ahmed
Enter number: 0123468779
Contact added successfully.
```

Output

simple_contacts.txt

```
1   ahmed 0123468779
```

Solution

```c
// www.gammal.tech

#include <stdio.h>

int main() {
    char name[100], number[100];
    FILE* simpleContacts = fopen("simple_contacts.txt", "a");

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

    printf("Enter number: ");
    scanf("%s", number);

    fprintf(simpleContacts, "%s %s\n", name, number);

    fclose(simpleContacts);

    printf("Contact added successfully.\n");

    return 0;
}
```

10- Create a program that allows the user to input multiple contacts and appends them to "simple_contacts.txt" until the user decides to stop.

قم بإنشاء برنامج يسمح للمستخدم بإدخال جهات اتصال متعددة وإلحاقها بـ
"simple_contacts.txt" حتى يقرر المستخدم التوقف.

Input & Output

```
Enter name: aly
Enter number: 0123456789
Do you want to add another contact? (y/n): y
Enter name: omar
Enter number: 0789456213
Do you want to add another contact? (y/n): n
Contacts added successfully.
```

Output

simple_contacts.txt

```
1    aly 0123456789
2    omar 0789456213
```

Solution

```c
// www.gammal.tech

#include <stdio.h>

int main() {
    char name[100], number[100];
    FILE* simpleContacts = fopen("simple_contacts.txt", "a");

    char choice;

    do {
        printf("Enter name: ");
        scanf(" %[^\n]", name);

        printf("Enter number: ");
        scanf("%s", number);

        fprintf(simpleContacts, "%s %s\n", name, number);

        printf("Do you want to add another contact? (y/n): ");
        scanf(" %c", &choice);

    } while (choice == 'y' || choice == 'Y');

    fclose(simpleContacts);

    printf("Contacts added successfully.\n");

    return 0;
}
```