



Phone Book

CS50xIran Final Project

Arman Ziaei

A decorative vertical bar on the left side of the slide, featuring a dark background with colorful, blurred code snippets in yellow, green, and red. The snippets include 'mit_val', 'd < f &&', 'th) {', ';g < c.len', 'b.splice(e', 'ce(e, 1);', and 's ? \$("#wO'.

Project Introduction

A real example of phone book is your contacts application in your phone.

This project is a console-application, written in C# Programming Language; following varied concepts of OOP, and CRUD operations.

All you need to have for my PhoneBook App, is **An Iranian National Code** & **An Email Address**.



How To Run

You're capable of opening this project, using IDEs like Visual Studio & Visual Studio Code, Rider, etc.

Another way is opening **PhoneBook.exe** file, from this directory:

PhoneBook\PhoneBook\bin\Debug\net5.0\PhoneBook.exe

How To Use

There are some requirements in order to Sign In.

- 1) An Iranian National Code (Or Use application's test national code : **2283888888**)
- 2) An Email Address.

NOTE: Your email address and National Code is private and secured to you, and could be deleted later.



How It Works!

If you ran the application successfully, you'll see two options:

- 1) *Login
- 2) *Sign Up

If you don't have an account, you need to create one using action number2, otherwise, you can Login with your national code.

NOTE: Make sure to create an account before Login process.



Main Menu

After entering in the application, you'll see a menu like this:

```
Usage:
1) Add A Contact
2) Edit An Existing Contact
3) Delete An Existing Contact
4) Show Contacts List
5) Exit
```

Then, you have to choose between numbers 1-5. Entering any other number will cause an error.

Add A Contact

By pressing action number 1, you'll see this menu:

```
Contact's First Name : Arman  
Contact's Last Name : Ziaei  
Contact's Phone Number : 09397136812
```

NOTE: Entering First Name And Last Name Is optional, but one of them is required.

NOTE: Phone Number needs to be valid, otherwise, an error will occur.

Supported Formats : Iranian Phone Number : +98 || 09

Example : +989397333333 || 09397333333

Edit Contact

By pressing action number2, you'll see this menu =====>
First, it displays your contacts
Then it asks for a number.

After selecting a number, you'll have to choose an operation number between 1 to 5.

```
Your Contacts :  
  
1)  
First Name : Arman  
Last Name : Ziaei  
Phone Number : 09397136812  
  
Which One Do You Want To Edit? 1  
  
Select Action :  
1) Edit First Name  
2) Edit Last Name  
3) Edit Phone Number  
4) Cancel  
5) Save  
  
Action Number : 
```

NOTE: your changes won't save, until you enter 5(Save).

Delete A Contact

By pressing action number 3, you'll see this menu:

```
Your Contacts :  
  
1)  
First Name : Arman  
Last Name : Ziaei  
Phone Number : 09397136812  
  
Which One Do You Want To Delete? 1  
Delete This Contact? (yes/no) : 
```

After selecting your contact, it will ask you to ensure whether you want to delete it or not. If “no” is typed, it won’t delete your contact. By typing “yes” it will delete your contact from your information JSON file.

NOTE: you could see the JSON File in the directory of the PhoneBook.exe.

List Of Contacts

```
1)
  Name ==> Arman Ziaei
  Phone Number ==> 09397136812

2)
  Name ==> user1 dw
  Phone Number ==> 09397131313

3)
  Name ==> arman
  Phone Number ==> 09177131313

Do You Want To Search In Your Contacts? (yes/no) : yes
Search Contact By Name: user

Result :
First Name : user1
Last Name : dw
Phone Number : 09397131313
```

By pressing action number 4, you'll see the list of your contacts.

NOTE:

You could also search in your contacts by typing "yes" when you're asked for it.

It will show you the result like this.

<===



Exit Application

Well Done! You've created your account, and performed CRUD on your contacts.

When you select action number 5, it will close the application and log out.

Log In

Now, Its time to log in again! Go ahead and enter your Iranian National Code in order to log in to your account.



Important!!

As mentioned earlier, none of your information will be accessed by application owner (Arman Ziaei).

Test Information:

- You can enter **2283888888** as your national code, if you're not an Iranian or you don't want to mention it.
- You can also enter **09397131313** as your mobile number.



What's Special?

I have used a variety of technologies, like:

- 1) OOP
- 2) TDD using AAA Principle (Arrange, Act, Assert)
- 3) Fluent Assertion
- 4) XUnit
- 5) CRUD Operations
- 6) Saving User Information As JSON File, etc.

How To Run Unit Tests?

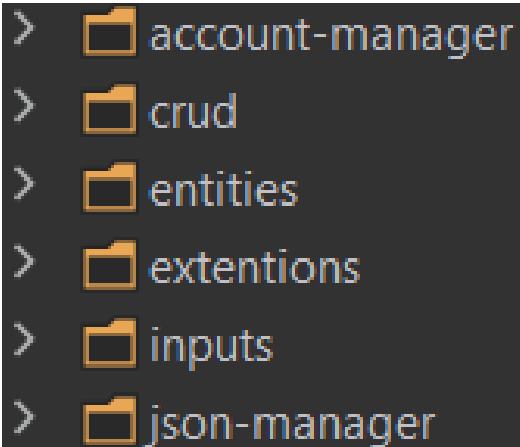
There are two projects inside PhoneBook directory.







- 1) PhoneBook
- 2) Tests

Go to Tests project; ValidationTests class is where I defined unit tests.

Project Structure

In PhoneBook project, you'll see these directories:



- >  account-manager
- >  crud
- >  entities
- >  extensions
- >  inputs
- >  json-manager

-account-manager directory is where you can see Login & Sign In logics.

-crud, for the process of creating, reading, updating(editing) and deleting your contacts.

-entities contains our models, like User, Contacts, etc.

-extensions are used every where, in generating file names, checking email, etc. Example: isEmail() & print() extensions.

-inputs, refers to everything that you enter in application terminal.

-json-manager contains CRUD logics, how to create a file and so on.



About

I live in Iran | Fars | Shiraz, and really looking forward science and computer engineering.

I'm very keen on learning new things, as much as teaching and studying.

I'm also capable of programming with famous programming languages, like : Java, Kotlin, C#, C, Python, CSS, HTML, JavaScript, etc.

I'm also experienced in Android & Backend Development, using C# and ASP .NET Core.

I'm working in TaavSys Co. in Shiraz, involved in producing ERPs for businesses.

Checkout My [LinkedIn Account](#).