

Project Name:

The Prison Management of Alcatraz

Student information

2010213623
Mohammad nabi Ahadi

2010213618
Maged Ahmed

Husam Safarini
2010213638

Analysis

I. Project Idea:

The Prison Management of Alcatraz Project is an application constructed to assist governmental institutes - that deal with specific individuals - manage their business effectively and less time consuming. The application is a comprehensible application with forms and functions such as, Login and viewing the data base; the inmates and officers' details are securely stored in a SQL database table.

The application contains multiple Forms and Classes. Each Form and Class are divided into specific folders where it is easy to access. The forms are comprised of 5: Login, Password Recovery, Officers DB, Prisoners DB, Database Selector.

II. The Purpose of the Application:

The purpose of this application is to deliver a user-friendly experience where the user has a variety of options and actions. For instance, viewing prisoners and officers' information, altering their information as needed, etc.

The main aim of this program is to perform all the necessary tasks with little-to-no issues; as well as accessing and manipulating all of the required data (as long as the right authentication is implemented).

III. Location of the saved data:


By using Microsoft SQL Server Management Studio, we can connect, access, and alter our data, by using a connection string.

This database consists of 2 tables which contain all of the information. The Authentication/Officers' Information table is called "Officers", and The Prisoners' Information table is called "Prisoners". Both of these tables store their designated information respectively.


Design

IV. SQL tables:

- A. Officers:** This table in the PrisonDB (Prison Database) is used to save the information about the staff (Officers, Manager, etc), who have the authority to view as well as edit the tables. This table includes: Officer ID, Name, Date of Birth, Gender, Country, Officer Rank, Email and Password.

Officers	
	OfficerID
	FirstName
	LastName
	DOB
	Gender
	Country
	OfficerRank
	Email
	Password

B. Prisoners: This table in the PrisonDB (Prison Database) stores the Prisoners' information, who have committed illegal actions against the state. The information includes: Prisoner ID, Name, Date of Birth, Gender, Height, Weight, Colour, Disease, Marital Status, Crime, Date of Crime, Imprisonment Date, Release Date, Prison Cell, Visitors.

Prisoners	
	PrisonerID
	FirstName
	LastName
	DOB
	Gender
	Country
	Height
	Weight
	Colour
	Disease
	MaritalStatus
	Crime
	DateOfCrime
	ImprisonmentDate
	ReleaseDate
	PrisonCell
	Visitors

v. Application Usage:

A. Log in: The first from that the user will come upon is the "Login" form. Only specific users (ex. Officers) will be authorized to pass through the "Login" page. If a user does not have an account, they won't be able to pass onto the next form.

The designated member needs to input their “Email” and “Password”, then simply click on the “Login” button in order to be allowed to use the application to its fullest.

The image shows a login form for "Alcatraz Administration". The title "Alcatraz Administration" is at the top in a large, dark serif font. Below it, the word "Login" is centered in a smaller, dark serif font. There are two input fields: "Email :" followed by a white rectangular box, and "Password :" followed by another white rectangular box. Below these fields is a grey rectangular button with the word "Login" in a dark serif font. At the bottom right, there is a green link that says "Forgot your Password? Click Here." The entire form is set against a light blue background.

Alcatraz Administration

Login

Email :

Password :

Login

[Forgot your Password? Click Here.](#)

- B. Password Recovery:** This form will permit the officer to change their password in case of forgetfulness, etc. The officer needs to input their “Email”, if the written “Email” is identical to the “Email” in the database, then the officer will be allowed to change their “Password” to their new desired password.

The image shows a password recovery form for "Alcatraz Administration". The title "Alcatraz Administration" is at the top in a large, dark serif font. Below it, the words "Password Recovery" are centered in a smaller, dark serif font. There are two input fields: "Email:" followed by a white rectangular box, and "New Password :" followed by another white rectangular box. Below these fields is a grey rectangular button with the word "Update" in a dark serif font. At the bottom right, there is a green link that says "Go back to Login screen. Click Here". The entire form is set against a light blue background.

Alcatraz Administration

Password Recovery

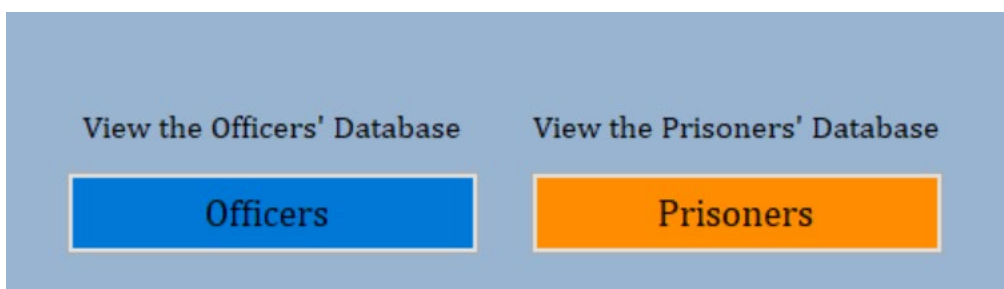
Email:

New Password :

Update

[Go back to Login screen. Click Here](#)

- C. Home Page:** In this form the user is presented with two options “View the Officers’ table” or “View the prisoners’ table”, which will navigate you to either of the forms, where you can perform numerous operations.

The image shows a home page for "Alcatraz Administration". It features two buttons side-by-side. The left button is blue with the word "Officers" in white serif font, and above it is the text "View the Officers' Database" in a smaller, dark serif font. The right button is orange with the word "Prisoners" in white serif font, and above it is the text "View the Prisoners' Database" in a smaller, dark serif font. The entire page is set against a light blue background.

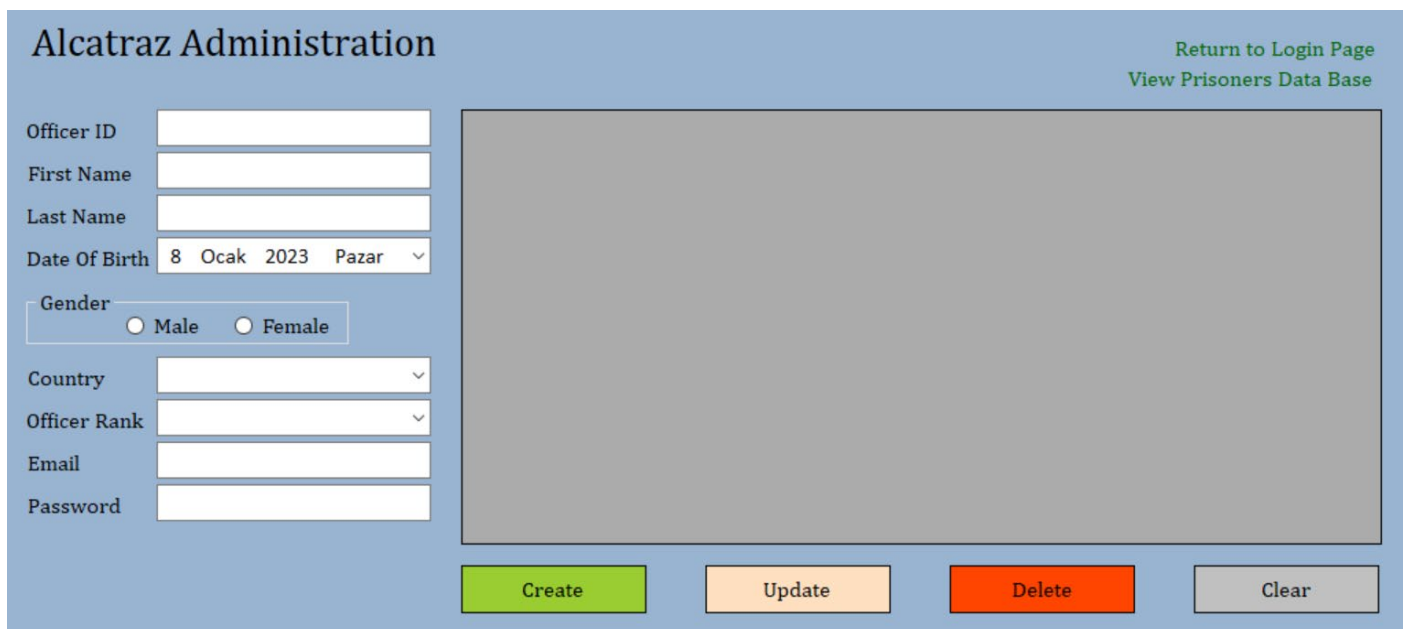
View the Officers' Database

Officers

View the Prisoners' Database

Prisoners

D. Officer Table: This form permits the user to execute the CRUD buttons, by entering all the necessary information into the designated fields (Textbox, Checkbox, Combo Box, Radio Button and Date Time Picker) with an explanation for each field (using Labels). The user will see the DataGridView which will display the table that contains the works' information; and by simply clicking once on the desired row, all the information in that row will appear in their designated fields, to edit the details easily. The user will also see an instant update to any edited values in the table. For insistent, if the user attempts to **Insert/Create** or **Update** or **Delete** the table, they will be able to see the change instantaneously in the DataGridView. To clear the fields just click on the **Clear**. There're 2 extra options to "Return to Login Page" or "View the Prisoners' Table". By clicking on one of the options, the user will be directed to that form.



The image shows a web application interface titled "Alcatraz Administration". On the left side, there is a form with the following fields: "Officer ID" (text input), "First Name" (text input), "Last Name" (text input), "Date Of Birth" (date and time picker showing "8 Ocak 2023 Pazar"), "Gender" (radio buttons for "Male" and "Female"), "Country" (dropdown menu), "Officer Rank" (dropdown menu), "Email" (text input), and "Password" (text input). On the right side, there is a large, empty gray rectangular area representing a DataGridView. At the bottom of the form, there are four buttons: "Create" (green), "Update" (orange), "Delete" (red), and "Clear" (gray). In the top right corner, there are two links: "Return to Login Page" and "View Prisoners Data Base", both in green text.

E. Prisoner Table: The PrisonerTable is an extremely important part of this application, because it handles each and every convict in the prison. This form will show essential components (Label, Textbox, Checkbox, Combo Box, Radio Button and Date Time Picker) and display their properties inside of the table. The user can easily add prisoners into the table, by filling in all of the fields and clicking on the "**Insert**" button. They can also update the table, by choosing the wanted row, clicking on it, edit all of the required details, then finally clicking the "**Update**" button. The "**Delete**" button will completely remove the selected row from the database (Note: a warning sign will appear asking for confirmation from the user to commit the delete action). "**Clear**" button will empty all of the fields in the form. There are two further options: "View the Prisoners' Table" or "Return to Login Page." The user is taken to that form by selecting one of the choices.

Alcatraz Administration

[Return to Login Page](#)
[View Officers Data Base](#)

Prisoner ID

First Name

Last Name

Date Of Birth

8 Ocak 2023 Pazar

Gender

☐ Male ☐ Female

Country

Height

cm

Weight

kg

Colour

Disease

☐ Infectious Diseases ☐ Deficiency Diseases
☐ Hereditary Diseases ☐ Physiological Diseases
☐ None

Marital Status

☐ Single ☐ Married ☐ Divorced

Crime

☐ Violent Crime ☐ Property Crime
☐ White-collar Crime
☐ Consensual or Victimless Crime

Date Of Crime

8 Ocak 2023 Pazar

Imprisonment Date

8 Ocak 2023 Pazar

Release Date

8 Ocak 2023 Pazar

Prison Cell

Visitors

☐ Family ☐ Friends
☐ Business ☐ Other

Extra details about visitors. **Not Mandatory**

Insert

Update

Delete

Clear

VI. Conclusion:

The Prison Management of Alcatraz program ultimately serves as a useful tool for jail workers, giving them access to the information and resources they require to effectively manage and run the jail. The management of inmates, keeping track of staff credentials, and organizing both prisoners and officers' information are just a few of the operations and duties that our application helps to automate and optimize.