

Polytechnic University of Puerto Rico  
Electrical & Computer Engineering and  
Computer Science Department  
**CECS3210 – Advanced Programming**  
**Due Date: February 9th, 2023**

## **Project Objectives:**

To write a program that implements the following Advanced Programming concepts:

1. Data encapsulation
2. Instantiate classes
3. Inheritance
4. Graphical User Interface concepts
5. Database

## **Project Name: Prison**

The program will have the following private attributes:

1. Prisoner's id
2. Prisoner's name
3. Prisoner's last name
4. photo (picture name saved in directory)
5. birth date
6. height (feet inches)
7. hair
8. eyes
9. where born
10. sentence
11. date of conviction
12. date to be liberated

The program will have the following menu and menu items:

- 1. File**
  - Add prisoner
  - Modify prisoner
  - Search for a prisoner
  - Display prisoners list
  - Exit
- 2. Help**
  - Help Contents
  - About

Items menu description:

- **Add prisoner** – will add a new prisoner
- **Modify prisoner** – modify an existent prisoner
- **Search for a prisoner** – search should be made by prisoner's id then display all information of the prisoner and must display the photo as well.
- **Display List of prisoner** – will display a table with all the prisoners which will be liberated after a date.
- **Help contents** – will display the help of your program.
- **About** – will display an about window displaying each of your member team names.

Before opening the form **Modify** and **Search** you should open a dialog search form with asking for the prisoner's id. Once you enter that value then you will open the **Modify** or the **Search** forms.

In **Add**, **Modify** and **Search for prisoner** form should be an image of the photo's prisoner. Your program should use the class **OpenFileDialog()** in order to get the photo for the prisoner and directory.

You will use a database to save all the prisoner's information. The professor will provide the queries for the database.