

Group: Britos and Friends

Members

John Ashley Britos – programmer/documentation

Nathaniel De Vera - programmer

Paolo Gundi Ganacial - programmer

Application Overview

The Britos and friends Student Records web app is a Blazor-based web application designed to manage student information efficiently using XML as the data storage format. It provides essential CRUD (Create, Read, Update, Delete) operations to maintain student records, including details such as Student ID, First Name, Last Name, Course, and Year Level.

Features implemented

- **Student List Display:** Shows all student records with details like Student ID, First Name, Last Name, Course, and Year Level.
- **Add Student:** Allows users to add new students with validation to ensure required fields are completed and valid.
- **Edit Student:** Users can update existing student records seamlessly.
- **Delete Student:** Enables removal of unwanted student records from the XML storage.
- **XML-Based Data Storage:** All student data is stored and managed in an XML file, allowing easy data persistence without a database.
- **Input Validation:** Ensures no null or invalid data is saved; for example, Year Level must be between 1 and 4.
- **User Interface:** Provides a clean and intuitive Blazor UI with responsive forms and tables.
- **Error Handling:** Displays user-friendly error messages for validation issues without exposing technical details.
- **Dynamic Student Count:** The homepage dynamically shows the total number of students currently stored.

Screenshots of the App

Britos and friends

Home

Student Records

Welcome to Student Records App

Total Students

2

Britos and friends

Home

Student Records

Student Records

Add Student

Student ID	First Name	Last Name	Course	Year Level	Actions
1	John	Britos	BSIT	3	<div>EditDelete</div>
2	Ashley	Britos	BSBA	1	<div>EditDelete</div>

Britos and friends

Home

Student Records

Student Records

Add Student

First Name

Nath

Last Name

Course

Select course

Year Level

Save

Cancel

Britos and friends

Home

Student Records

Student Records

Add Student

First Name

Nath

Last Name

Course

Select course

Select course

BSIT

BSBA

BIT

BSEduc

Britos and friends

Home

Student Records

Student Records

Last name is required.

Add Student

First Name

Nath

Last Name

Course

Select course

Year Level

SaveCancel

Xml file structure

The application uses an XML file (students.xml it is inside the Data folder) as the primary data storage for student records. The file is structured in a hierarchical format that organizes each student's data under a <Student> element, all grouped within a root <Students> element.

```
<Students>
```

```
  <Student>
```

```
    <StudentId>1</StudentId>
```

```
    <FirstName>John</FirstName>
```

```
    <LastName>Britos</LastName>
```

```
    <Course>BSIT</Course>
```

```
    <YearLevel>3</YearLevel>
```

```
  </Student>
```