

Student Management Application Documentation

Student Management Application , ACE UCv 2022 , Practice Stage

Table of Contents

1. [Introduction](#)
 2. [Features](#)
 3. [Inputs](#)
 4. [Running the Application](#)
 - [GUI Mode](#)
 - [CLI Mode](#)
 5. [GUI Interface](#)
 - [Importing XML Files](#)
 - [Viewing Imported Data](#)
 - [Generating Reports](#)
 6. [CLI Usage](#)
 7. [Outputs](#)
 8. [Abbreviations](#)
 9. [Configuration using Properties File](#)
 10. [History](#)
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1. Introduction

The Student Management Application is a versatile tool designed for managing student information, disciplines, and grades and generate a report for specified discipline with save in a xml (. xml) file.. It features both a Graphical User Interface (GUI) and a Command Line Interface (CLI), providing flexibility for users with different preferences.

2. Features

- **GUI and CLI Support:** Users can interact with the application either through a user-friendly GUI or a command-line interface.
 - **Import Data:** The application accepts three XML files containing student, discipline, and grade information.
 - **Generate Reports:** Users can generate reports for a specified discipline with students sorted alphabetically.
 - **Save Reports:** The generated reports are saved in XML format for future reference.
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3. Inputs

The application requires three XML files as inputs. These files contain information about students, disciplines, and grades.

4. Running the Application

GUI Mode


1. **Launch Application:** Run the application, and the GUI interface will be displayed.
2. **Import XML Files:** Click on the "Import XML Files" button to load the required XML files.
3. **Generate Reports:** View the imported data and generate reports for specified disciplines.

CLI Mode

1. **Run CLI Application:** Execute the CLI application with appropriate command-line arguments.
 2. **Provide XML Paths:** Include file paths for the student, discipline, and grade XML files.
 3. **Generate Reports:** Reports will be generated for specified disciplines in CLI mode.
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5. GUI Interface

Importing XML Files

 Student ManagementV1.0.1

STUDENT
D:\Data\Facultate\Master\An 1\SEM 1\MSIC\Proiect\StudentManagement\src\main\resources\input_files\Student.xml
Browse

DISCIPLINE
D:\Data\Facultate\Master\An 1\SEM 1\MSIC\Proiect\StudentManagement\src\main\resources\input_files\Materie.xml
Browse

GRADE
D:\Data\Facultate\Master\An 1\SEM 1\MSIC\Proiect\StudentManagement\src\main\resources\input_files\Nota.xml
Browse

Student	Discipline	Grade		
ID	NAME	SURNAME	GENRE	PHONE
1	dinkar	kad	Male	0374826495
2	Vaneet	Gupta	Female	0375628585
3	jasvir	singn	Male	0735491645
4	Draghici	Andreea	Female	0735555551
5	Paleta	Petrom	Female	073222223

Generate

Click the "Browse" button. Select the XML files for students, disciplines, and grades.

Viewing Imported Data

After importing, the data from XML files will be displayed in a table view.

Generating Reports

Select a "Generate Report" button to create a report for that discipline. The report will be alphabetically sorted and saved in XML format.

6. CLI Usage

- Run the CLI application with appropriate command-line arguments.

Example Command Line Arguments for Running Student Management Application

```
java -jar StudentManagement.jar -s "/path/to/student/file.xml" -d
"/path/to/discipline/file.xml" -g "/path/to/grade/file.xml" -o
"/path/to/output/file.xml"
```

- Provide file paths for student, discipline, and grade XML files.
- Reports will be generated for specified disciplines.

7. Outputs

Reports generated by the application will be saved in XML format.

8. Abbreviations

Syntax	Description
GUI	G raphical U ser I nterface
XML	E xtensible M arkup L anguage
CLI	C ommand L ine I nterface

9. Configuration using Properties File

To facilitate the management of input file paths, the application supports the use of a properties file. This properties file can be used to store and reload the configurations of the paths for the XML files.

Sample example:

```
#Sun Dec 03 13:03:18 EET 2023
STUDENT_XML_PATH=/path/to/student/file.xml
GRADE_XML_PATH=/path/to/discipline/file.xml
DISCIPLINE_XML_PATH=/path/to/grade/file.xml
```

10. History

Version 1.0.1

- CLI supported.
- Modify GUI, used JavaFX now.
- Import and view XML data using tab pane with tables view.
- Properties config file supported, used to store and reload the configurations of the paths for the XML files.
- Generate reports for specified disciplines.
- Migrated initial project to gradle distribution now, to install easy the dependencies.

Version 1.0.0

- Initial version of application (just Swing GUI functionality).