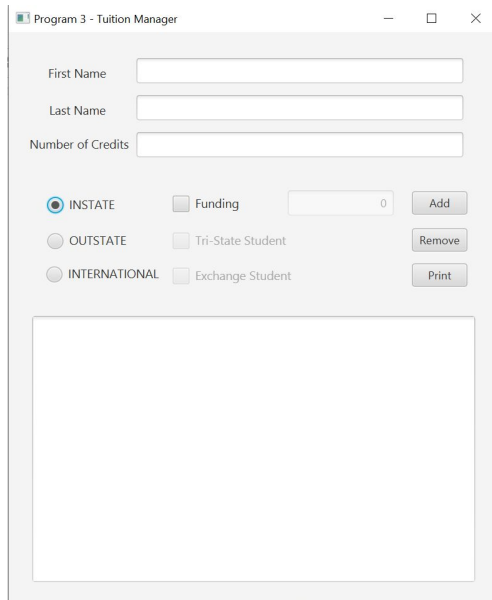


Dhruv Patel, Shahil Patel

Test Design Document

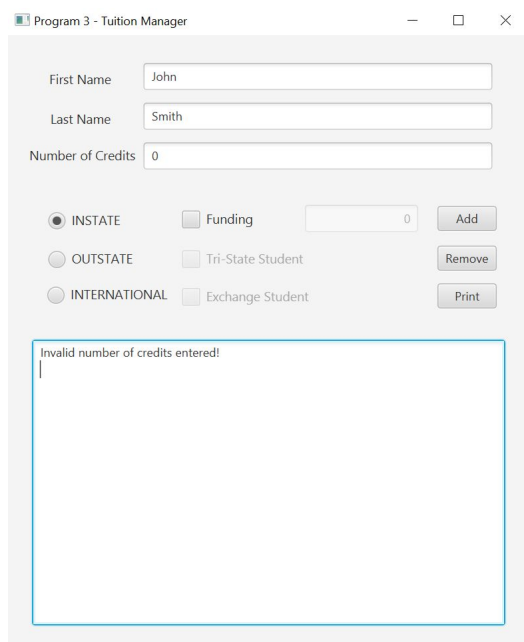
-GUI Program when first ran:



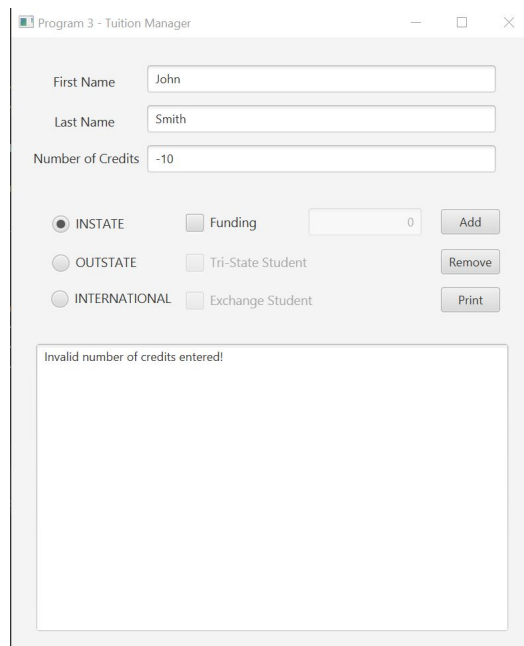
The screenshot shows the 'Program 3 - Tuition Manager' window. It features three text input fields for 'First Name', 'Last Name', and 'Number of Credits'. Below these are three radio button options: 'INSTATE' (selected), 'OUTSTATE', and 'INTERNATIONAL'. To the right of the radio buttons are three checkboxes: 'Funding' (unchecked), 'Tri-State Student' (unchecked), and 'Exchange Student' (unchecked). There are three buttons: 'Add', 'Remove', and 'Print'. A large empty rectangular area is at the bottom of the window.

Invalid Test Cases:

-When a 0 or negative number is inserted for the number of credits



This screenshot shows the 'Program 3 - Tuition Manager' window with 'First Name' set to 'John' and 'Last Name' set to 'Smith'. The 'Number of Credits' field contains '0'. The 'INSTATE' radio button is selected. The 'Add', 'Remove', and 'Print' buttons are visible. A message box at the bottom of the window displays the text 'Invalid number of credits entered!'.



This screenshot shows the 'Program 3 - Tuition Manager' window with 'First Name' set to 'John' and 'Last Name' set to 'Smith'. The 'Number of Credits' field contains '-10'. The 'INSTATE' radio button is selected. The 'Add', 'Remove', and 'Print' buttons are visible. A message box at the bottom of the window displays the text 'Invalid number of credits entered!'.

-Negative funding amount for an in-state student

The first screenshot shows the application with the following data: First Name: John, Last Name: Smith, Number of Credits: 16. The 'INSTATE' radio button is selected, and the 'Funding' checkbox is checked. The funding amount is entered as -1000. The 'Add' button is highlighted. The message box at the bottom contains the text: "Funds can't be negative!".

The second screenshot shows the application with the following data: First Name: John, Last Name: Bob, Number of Credits: 16. The 'INSTATE' radio button is selected, and the 'Funding' checkbox is checked. The funding amount is entered as -1. The 'Add' button is highlighted. The message box at the bottom contains the text: "Funds can't be negative!".

-When characters are entered where numeric data is expected

The first screenshot shows the application with the following data: First Name: John, Last Name: Sauce, Number of Credits: ee. The 'INSTATE' radio button is selected, and the 'Funding' checkbox is unchecked. The funding amount is entered as -1. The 'Add' button is highlighted. The message box at the bottom contains the text: "Credits must be a number value!".

The second screenshot shows the application with the following data: First Name: John, Last Name: Sauce, Number of Credits: 10. The 'INSTATE' radio button is selected, and the 'Funding' checkbox is checked. The funding amount is entered as eead. The 'Add' button is highlighted. The message box at the bottom contains the text: "Funds need to be a number".

-An Instate student can't choose tri-state or exchange status.

Program 3 - Tuition Manager

First Name: John

Last Name: Fish

Number of Credits: 10

☒ INSTATE ☐ Funding 0 Add

☐ OUTSTATE ☐ Tri-State Student Remove

☐ INTERNATIONAL ☐ Exchange Student Print

-An Outstate cannot enter funding or choose exchange status.

Program 3 - Tuition Manager

First Name: John

Last Name: Fish

Number of Credits: 10

☐ INSTATE ☐ Funding 0 Add

☒ OUTSTATE ☐ Tri-State Student Remove

☐ INTERNATIONAL ☐ Exchange Student Print

-An International cannot enter funding or choose tri-state status.

Program 3 - Tuition Manager

First Name: John

Last Name: Po

Number of Credits: 12

☐ INSTATE ☐ Funding 0 Add

☐ OUTSTATE ☐ Tri-State Student Remove

☒ INTERNATIONAL ☐ Exchange Student Print

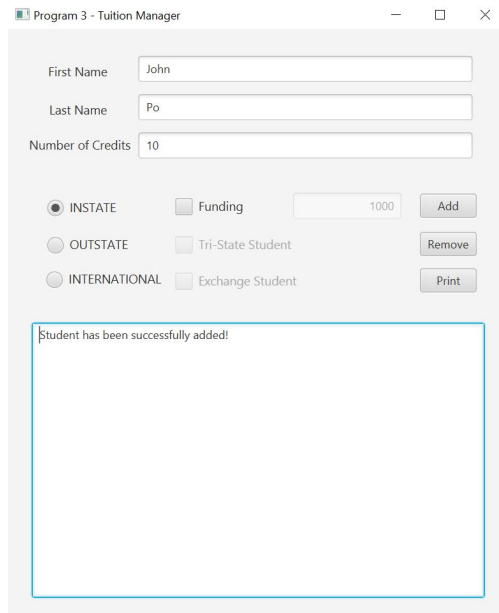
-Adding a student who is already in the list,

-Name: John Po

-Credits: 10

-Instate option selected

-Then in the following image, we try to enter the same data and the error is caught



Program 3 - Tuition Manager

First Name: John

Last Name: Po

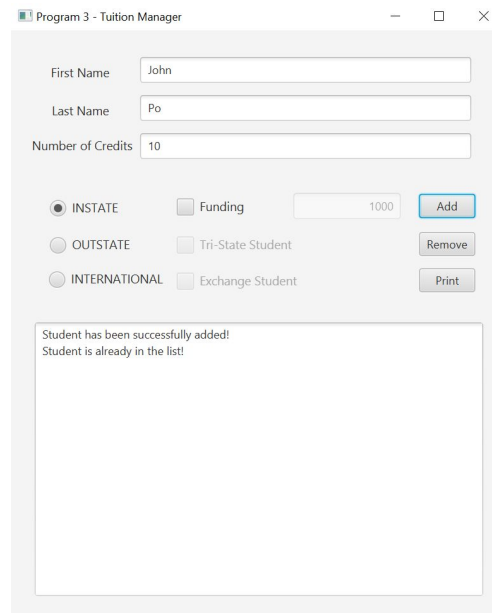
Number of Credits: 10

☒ INSTATE ☐ Funding 1000

☐ OUTSTATE ☐ Tri-State Student

☐ INTERNATIONAL ☐ Exchange Student

Student has been successfully added!



Program 3 - Tuition Manager

First Name: John

Last Name: Po

Number of Credits: 10

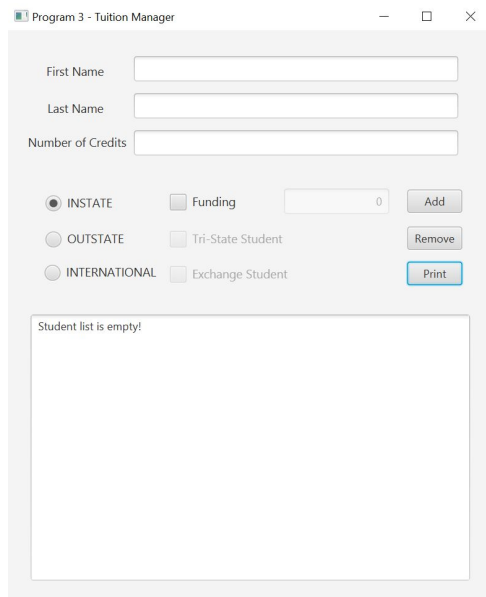
☒ INSTATE ☐ Funding 1000

☐ OUTSTATE ☐ Tri-State Student

☐ INTERNATIONAL ☐ Exchange Student

Student has been successfully added!
Student is already in the list!

-Printing an empty list right after the program is running:



Program 3 - Tuition Manager

First Name:

Last Name:

Number of Credits:

☒ INSTATE ☐ Funding 0

☐ OUTSTATE ☐ Tri-State Student

☐ INTERNATIONAL ☐ Exchange Student

Student list is empty!

-Removing student from the empty list:

The screenshot shows a window titled "Program 3 - Tuition Manager". It contains input fields for "First Name" (Josh), "Last Name" (Peterson), and "Number of Credits" (15). Below these are three radio button options: "INSTATE", "OUTSTATE" (selected), and "INTERNATIONAL". Each radio button has a corresponding checkbox: "Funding" (unchecked), "Tri-State Student" (unchecked), and "Exchange Student" (unchecked). There are three buttons: "Add", "Remove", and "Print". At the bottom, a text box displays the message "The student list is empty!".

-Removing a student that isn't in the list:

-3 students were added to the list and I printed the list to show which students are part of the list. Then, entered data of a student that wasn't in the list and tried to remove them.

The screenshot shows the same "Program 3 - Tuition Manager" window. The input fields now show "First Name" (Josh), "Last Name" (Norm), and "Number of Credits" (20). The "OUTSTATE" radio button is still selected. The "Add", "Remove", and "Print" buttons are present. The text box at the bottom now displays the following text:
Student has been successfully added!
Student has been successfully added!
Student has been successfully added!
Doug Peter Credits:15 Funds:0 Tuition Due: \$7936
Doug Doug Credits:16 Is Tristate:false Tuition Due: \$12781
D Po Credits:19 Is Tristate:false Tuition Due: \$12781
Student to be removed not found in list!

-Add button clicked, but no data inserted into fields and any additional buttons weren't pressed

Program 3 - Tuition Manager

First Name:

Last Name:

Number of Credits:

☒ INSTATE ☐ Funding **Add**

☐ OUTSTATE ☐ Tri-State Student **Remove**

☐ INTERNATIONAL ☐ Exchange Student **Print**

First name is required!

-Remove button clicked, but no data inserted into fields and any additional buttons weren't pressed

Program 3 - Tuition Manager

First Name:

Last Name:

Number of Credits:

☒ INSTATE ☐ Funding **Add**

☐ OUTSTATE ☐ Tri-State Student **Remove**

☐ INTERNATIONAL ☐ Exchange Student **Print**

The student list is empty!

-Incomplete data for both the add and remove buttons clicked

Program 3 - Tuition Manager

First Name:

Last Name:

Number of Credits:

☒ INSTATE ☒ Funding **Add**

☐ OUTSTATE ☐ Tri-State Student **Remove**

☐ INTERNATIONAL ☐ Exchange Student **Print**

No credit value entered!

Program 3 - Tuition Manager

First Name:

Last Name:

Number of Credits:

☐ INSTATE ☒ Funding **Add**

☒ OUTSTATE ☐ Tri-State Student **Remove**

☐ INTERNATIONAL ☐ Exchange Student **Print**

The student list is empty!

-The number of credits entered for international students is less than 9

Program 3 - Tuition Manager

First Name: Jin

Last Name: Yang

Number of Credits: 7

☐ INSTATE ☐ Funding

☐ OUTSTATE ☐ Tri-State Student

☒ INTERNATIONAL ☐ Exchange Student

Invalid number of credits entered!

Program 3 - Tuition Manager

First Name: Jin

Last Name: Yang

Number of Credits: -10

☐ INSTATE ☐ Funding

☐ OUTSTATE ☐ Tri-State Student

☒ INTERNATIONAL ☐ Exchange Student

Invalid number of credits entered!

Valid Test Cases:

-Adding either an International, Instate, or Outstate student to the list

The first screenshot shows the 'Add' button being clicked for an Instate student (Dee Pee, 16 credits). The second screenshot shows the 'Add' button being clicked for an Outstate student (Wee Pee, 12 credits). The third screenshot shows the 'Add' button being clicked for an International student (Yee Pee, 14 credits). Each screenshot shows the 'Add' button highlighted in blue.

-Printing student list:

The screenshot shows the 'Print' button being clicked. The application displays the following student list:

First Name	Last Name	Number of Credits	Funding	Tri-State Student	Exchange Student	Tuition Due
Dee	Pee	16	0			\$7936
Wee	Pee	12		True		\$8113
Yee	Pee	14			False	\$15021

-Removing student from the list

The screenshot shows the 'Remove' button being clicked. The application displays the following student list:

First Name	Last Name	Number of Credits	Funding	Tri-State Student	Exchange Student	Tuition Due
Dee	Pee	16	0			\$7936
Wee	Pee	12		True		\$8113

