

SE 3XA3: Module Interface Specification

Euneva

Team 9, Euneva
Mehta, Jash - mehtaj8
Sharma, Aditya - shara24
Ren, Zackary - renx11

April 5, 2021

Contents

1	Introduction	2
2	MIS of GUI Module (M1)	3
2.1	Interface Syntax	3
2.1.1	Exported Access Program	3
2.1.2	Exported Constants	3
2.1.3	Exported Types	3
2.2	Interface Semantics	3
2.2.1	State Variables	3
2.2.2	Environment Variables	3
2.2.3	Assumptions	3
2.2.4	Access Program Semantics	3
3	MIS of Login Module (M2)	4
3.1	Interface Syntax	4
3.1.1	Exported Access Program	4
3.1.2	Exported Constants	4
3.1.3	Exported Types	4
3.2	Interface Semantics	4
3.2.1	State Variables	4
3.2.2	Environment Variables	4
3.2.3	Assumptions	4
3.2.4	Access Program Semantics	4
4	MIS of FilterCourses Module (M3)	5
4.1	Interface Syntax	5
4.1.1	Exported Access Program	5
4.1.2	Exported Constants	5
4.1.3	Exported Types	5
4.2	Interface Semantics	5
4.2.1	State Variables	5
4.2.2	Environment Variables	5
4.2.3	Assumptions	5
4.2.4	Access Program Semantics	5

5	MIS of AssignmentInformation Module (M4)	6
5.1	Interface Syntax	6
5.1.1	Exported Access Program	6
5.1.2	Exported Constants	6
5.1.3	Exported Types	6
5.2	Interface Semantics	6
5.2.1	State Variables	6
5.2.2	Environment Variables	6
5.2.3	Assumptions	6
5.2.4	Access Program Semantics	6
6	MIS of QuizInformation Module (M5)	8
6.1	Interface Syntax	8
6.1.1	Exported Access Program	8
6.1.2	Exported Constants	8
6.1.3	Exported Types	8
6.2	Interface Semantics	8
6.2.1	State Variables	8
6.2.2	Environment Variables	8
6.2.3	Assumptions	8
6.2.4	Access Program Semantics	8
7	MIS of Filtering Module (M6)	10
7.1	Interface Syntax	10
7.1.1	Exported Access Program	10
7.1.2	Exported Constants	10
7.1.3	Exported Types	10
7.2	Interface Semantics	10
7.2.1	State Variables	10
7.2.2	Environment Variables	10
7.2.3	Assumptions	10
7.2.4	Access Program Semantics	10

List of Tables

1	Revision History	1
----------	-----------------------------------	----------

List of Figures

Date	Version	Notes
17/03/2021	1.0	Initial version of Module Interface Specification

Table 1: **Revision History**

1 Introduction

This project involves a lot of front-end web development. As a result, most of the components cannot be effectively described as part of the MIS format. However, the back-end components of the software, the components that involve more logic and have more engineering based design decisions have been the main focus of this MIS.

2 MIS of GUI Module (M1)

2.1 Interface Syntax

2.1.1 Exported Access Program

Name	In	Out	Exceptions
Constructor	-	GUI	-

2.1.2 Exported Constants

None

2.1.3 Exported Types

None

2.2 Interface Semantics

2.2.1 State Variables

Not Applicable

2.2.2 Environment Variables

GUI

2.2.3 Assumptions

None

2.2.4 Access Program Semantics

Constructor():

Input: None

Transition: None

Output: GUI of To-do list app

Exception: None

3 MIS of Login Module (M2)

3.1 Interface Syntax

3.1.1 Exported Access Program

Name	In	Out	Exceptions
Login	usernameArg, passwordArg	-	InvalidLoginException

3.1.2 Exported Constants

None

3.1.3 Exported Types

None

3.2 Interface Semantics

3.2.1 State Variables

Not Applicable

3.2.2 Environment Variables

None

3.2.3 Assumptions

A valid MACID and password will be entered as usernameArg and passwordArg

3.2.4 Access Program Semantics

login(usernameArg, passwordArg):

Input: usernameArg, passwordArg: Strings //User inputs

Transition: Submits entered information

Output: None

Exception: InvalidLoginException if usernameArg or passwordArg is not a valid MACID or password

4 MIS of FilterCourses Module (M3)

4.1 Interface Syntax

4.1.1 Exported Access Program

Name	In	Out	Exceptions
filterCourses	shadowRoot	panelId	InvalidLoginException

4.1.2 Exported Constants

None

4.1.3 Exported Types

None

4.2 Interface Semantics

4.2.1 State Variables

Not Applicable

4.2.2 Environment Variables

None

4.2.3 Assumptions

None

4.2.4 Access Program Semantics

filterCourses(shadowRoot):

Input: shadowRoot: CSS element //Element used to navigate through the HTML

Transition: Filters courses for current semester

Output: panelID: String //The ID of the filtered courses

Exception: None

5 MIS of AssignmentInformation Module (M4)

5.1 Interface Syntax

5.1.1 Exported Access Program

Name	In	Out	Exceptions
getAssignmentInformation	classNames, classUrls	assignmentJson	-
getClasses	shadowRoot, panelID	classUrls, class-Names	-
getAssignmentDueDates	dueDateElems	dateArr	-
getAssignmentCompleteStatus	completionStatusElems	completionStatusArr	-
getAssignmentFolderNames	assignmentFolderElems	assignmentNamesArr	-

5.1.2 Exported Constants

None

5.1.3 Exported Types

None

5.2 Interface Semantics

5.2.1 State Variables

Not Applicable

5.2.2 Environment Variables

None

5.2.3 Assumptions

None

5.2.4 Access Program Semantics

getAssignmentInformation(classNames, classUrls):

Input: classNames, classUrls: String arrays //Names and URLs for each class

Transition: Collects and returns all assignment information in a dictionary

Output: assignmentJson: dictionary //Dictionary containing all information for assignments

Exception: None

getClasses(shadowRoot, panelID):

Input: shadowRoot, panelID: CSS element, String

Transition: Obtains all classUrls and classNames

Output: classUrls, classNames: String arrays

Exception: None

getAssignmentDueDates(dueDateElems):

Input: dueDateElems: CSS elements //Elements collected from the scraping

Transition: Collects assignment due dates for every class

Output: dateArr: String array //Array of dates

Exception: None

getAssignmentCompleteStatus(completionStatusElems):

Input: completionStatusElems: CSS elements //Elements collected from the scraping

Transition: Collects assignment completion status for every class

Output: completionStatusArr: String array //Array of completion statuses

Exception: None

getAssignmentFolderNames(assignmentFolderElems):

Input: assignmentFolderElems: CSS elements //Elements collected from the scraping

Transition: Collects assignment folder names for every class

Output: assignmentNamesArr: String array //Array of assignment names

Exception: None

6 MIS of QuizInformation Module (M5)

6.1 Interface Syntax

6.1.1 Exported Access Program

Name	In	Out	Exceptions
getQuizInformation	classNames, classUrls	quizJson	-
getQuizFolderNames	quizFolderElems	quizNamesArr	-
getQuizDueDates	dueDateClass	dateArr	-
getQuizCompleteStatus	completionStatusElems	completionStatusArr	-
getClasses	shadowRoot, panelID	classUrls, classNames	-

6.1.2 Exported Constants

None

6.1.3 Exported Types

None

6.2 Interface Semantics

6.2.1 State Variables

Not Applicable

6.2.2 Environment Variables

None

6.2.3 Assumptions

None

6.2.4 Access Program Semantics

getQuizInformation(classNames, classUrls):

Input: classNames, classUrls: String arrays

Transition: Collects and returns all quiz information in a dictionary

Output: quizJson: dictionary //Dictionary containing all quiz information

Exception: None

getQuizFolderNames(quizFolderElems):

Input: quizFolderElems: CSS elements //Elements collected from the scraping

Transition: Collects quiz folder names for every class

Output: quizNamesArr: String array //Array of quiz names

Exception: None

getQuizDueDates(dueDateClass):

Input: dueDateClass: CSS elements //Elements collected from the scraping

Transition: Collects quiz due dates for every class

Output: dateArr: String array //Array of dates

Exception: None

getQuizCompleteStatus(completionStatusElems):

Input: completionStatusElems: CSS elements //Elements collected from the scraping

Transition: Collects quiz completion status for every class

Output: completionStatusArr: String array //Array of completion statuses

Exception: None

getClasses(shadowRoot, panelID):

Input: shadowRoot, panelID: CSS element, String

Transition: Obtains all classUrls and classNames

Output: classUrls, classNames: String arrays

Exception: None

7 MIS of Filtering Module (M6)

7.1 Interface Syntax

7.1.1 Exported Access Program

Name	In	Out	Exceptions
filterAssignmentInformation	assignmentData	assignmentDataFiltered	-
filterQuizInformation	quizData	quizDataFiltered	-
main	-	-	-

7.1.2 Exported Constants

None

7.1.3 Exported Types

None

7.2 Interface Semantics

7.2.1 State Variables

Not Applicable

7.2.2 Environment Variables

None

7.2.3 Assumptions

None

7.2.4 Access Program Semantics

filterAssignmentInformation(assignmentData):

Input: assignmentData: dictionary

Transition: Filters all assignment information and returns a dictionary

Output: assignmentDataFiltered: dictionary //Dictionary containing all the assignment data filtered

Exception: None

filterQuizInformation(quizData):

Input: quizData: dictionary

Transition: Filters all quiz information and returns a dictionary

Output: quizDataFiltered: dictionary //Dictionary containing all the
quiz data filtered

Exception: None

main():

Input: None

Transition: Uses other modules to combine and filter all information.

Output: None

Exception: None