SE 3XA3: Module Interface Specification
Euneva

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

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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 desicions have been the main focus of this MIS.

2 MIS of GUI Module

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

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
Transition: Submits entered information
Output: None
Exception: InvalidLoginException if usernameArg or passwordArg is not a valid MACID or password

4 MIS of FilterCourses Module

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
Transition: Filters courses for current semester
Output: panelID: String
Exception: None

5 MIS of AssignmentInformation Module

5.1 Interface Syntax

5.1.1 Exported Access Program

Name	In	Out	Exceptions
getAssignmentInformation	classNames, classUrls	assignmentJson	-
getClasses	shadowRoot, panelID	classUrls, classNames	-
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

Transition: Collects and returns all assignment information in a dictionary
Output: assignmentJson: dictionary
Exception: None

getClasses(shawdowRoot, 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
Transition: Collects assignment due dates for every class
Output: dateArr: String array
Exception: None

getAssignmentCompleteStatus(completionStatusElems):
Input: completionStatusElems: CSS elements
Transition: Collects assignment completion status for every class
Output: completionStatusArr: String array
Exception: None

getAssignmentFolderNames(assignmentFolderElems):
Input: assignmentFolderElems: CSS elements
Transition: Collects assignment folder names for every class
Output: assignmentNamesArr: String array
Exception: None

6 MIS of QuizInformation Module

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

getAssignmentInformation(classNames, classUrls):

Input: classNames, classUrls: String arrays

Transition: Collects and returns all assignment information in a dictionary

Output: assignmentJson: dictionary
Exception: None

getQuizInformation(classNames, classUrls):
Input: classNames, classUrls: String arrays
Transition: Collects and returns all quiz information in a dictionary
Output: quizJson: dictionary
Exception: None

getQuizFolderNames(quizFolderElems):
Input: quizFolderElems: CSS elements
Transition: Collects quiz folder names for every class
Output: quizNamesArr: String array
Exception: None

getQuizDueDates(dueDateClass):
Input: dueDateClass: CSS elements
Transition: Collects quiz due dates for every class
Output: dateArr: String array
Exception: None

getQuizCompleteStatus(completionStatusElems):
Input: completionStatusElems: CSS elements
Transition: Collects quiz completion status for every class
Output: completionStatusArr: String array
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

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

Exception: None

filterQuizInformation(quizData):
Input: quizData: dictionary
Transition: Filters all quiz information and returns a dictionary
Output: quizDataFiltered: dictionary
Exception: None

main():
Input: None
Transition: Uses other modules to combine and filter all information.
Output: None
Exception: None