Quickflip Implementation Manual

Quickflip
-Scene scene
-BuffereredReader reader
-String filePath
-int fileMethod
-int studyMethod
-int index
-ArrayList termsList
-Map termsMap
-File selectedFile
+start(Stage stage)
+setRoot(String fxml)
+loadFXML(String fxml)
+grabScene()
+main(String[] args)

class Quickflip:

This is the main class that extends the Application class from JavaFX and contains the main() method and overrides the start() method along with other methods:

- start() – Overrides start() method from application method and loads/titles the initial starting scene.
- setRoot() – This method establishes a way to change the current scene. This is done using the .setRoot command using the previously declared scene. This command sets the current scene by calling the loadFXML() method.
- loadFXML() – This method acts as an overarching FXML loader to get and return a specified FXML file from the Quickflip resources folder.
- grabScene() – This method serves to simply return the current scene. This is later used to find FXML elements from a specified scene.
- main() – This is the main method which launches the application.

StartPageController

-Button exitBTN

-Button loadBTN

-Button newBTN

-ImageView logo

+exitProgram(ActionEvent event)

+enterNew(ActionEvent event)

+enterLoad(ActionEvent event)

class StartPageController:

This class serves as the controller for the StartPage FXML file which contains the visual elements for the start page:

- exitProgram() – This method closes the application upon the user's clicking of the "Exit" button.
- enterNew() – This method changes the current scene to the NewCardPage FXML file; this method also and establishes the fact that the user has decided to create their own flashcards.
- enterLoad() – This method establishes the fact that the user has decided to load their flashcards; this method displays the file manager for the user to select a file and then changes the current scene to the FlashCards FXML file.

NewCardPageController

-ImageView backLogo

-TextArea taDefinition

-textArea taSavePop

-TextField tfTerm

-Button btnSave

-Button btnNoSave

-Button btnCancel

+initialize()

+backToStart(MouseEvent event)

+cancel(ActionEvent event)

+nextTerm(ActionEvent event)

+studyTerms(ActionEvent event)

+flashCardsMethod(ActionEvent event)

+testMethod(ActionEvent event)

+saveFlashcards()

+showPopup()

+hidePopup()

+writeToFile(String term, String definition)

class NewCardPageController:

This class serves as the controller for the NewCardPage FXML file which contains the visual elements for the flashcard creation page:

- initialize() – This method establishes hover properties for the Quickflip logo; this method carries over to the other controller classes.
- backToStart() – This method changes the current scene to the StartPage FXML file; this method carries over to the other controller classes.
- cancel() – This method hides the "Save Files?" popup.
- nextTerm() – This method clears the text fields and calls the writeToFile() method.
- studyTerms() – This method either sets the current scene to Flashcards.fxml or Text.fxml depending on which button the user has pressed.
- flashcardsMethod() – This method is used in determining which button the user pressed.
- testMethod() – This method is used in determining which button the user has pressed.
- saveFlashcards() – This method saves the user's flashcards to a file.
- show/hidePop() – These methods either show or hide the "Save Files?" popup
- writeToFile() – This method writes the user's flashcards a temporary file.

FlashCardsController

-ImageView backLogo
-Text tTerm
-Text tDefinition
-Button btnFlipCard
-Rectangle rFlashCard
-Button btnNextCard
-Button btnTest
-String term
-Strin definition

+initialize()
+backToStart(MouseEvent event)
+writeFlashCards(String string)
+flipCard(ActionEvent event)
+enterTest(ActionEvent event)
+nextCard(ActionEvent event)
+flipTransition(Rectangle rFlashCard)
+scaleTransition(Rectangle rFlashCard)

TestController

-ImageView backLogo
-Rectangle rTestCard
-Button btnT1
-Button btnT2
-Button btnT3
-Button btnT4
-Button btnNext
-TextArea taTestDefinition

+initialize()
+backToStart(MouseEvent event)
+checkAnswerB1(ActionEvent event)
+checkAnswerB2(ActionEvent event)
+checkAnswerB3(ActionEvent event)
+checkAnswerB4(ActionEvent event)
+next(ActionEvent event)
+writeTest()
+fillButtons()
+clearButtons()
+scaleTransition(Rectangle rTestCard)

class FlashCardsController:

This class serves as the controller for the FlashCards FXML file which contains the visual elements for the flashcards page:

- writeFlashCards() – This method reads the user's flashcards from the file and displays them.
- flipCard() – This method alternates between displaying the term and definition.
- enterTest() – This method changes the current scene to the multiple choice test.
- nextCard() – This method progresses to the next flashcard.
- flipTransition() – This method creates a flipping animation that is called when the user clicks "Flip Card."
- scaleTransition() – This method creates a pulsing animation that is called when the user clicks "Next Card." This method is carried over to the TestController class.

class TestController:

This class serves as the controller for the Test FXML file which contains the visual elements for the multiple-choice test page:

- checkAnswerB() – These methods check to see if the user has chosen the correct term for each button.
- next() – This method progresses to the next definition.
- writeTest() – This method obtains the various terms and definitions from the user's flashcard file and puts the terms in an ArrayList and the definitions in a TreeMap.
- fillButtons() – This method fills the four buttons with random terms where 1 button always contains the correct answer.
- clearButtons() – This method resets the buttons after the user has clicked "Next"

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-ImageView logo

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NewCardPageController

-ImageView backLogo

-TextArea taDefinition

-textArea taSavePop

-TextField tfTerm

-Button btnSave

-Button btnNoSave

-Button btnCancel

+initialize()

+backToStart(MouseEvent event)

+cancel(ActionEvent event)

+nextTerm(ActionEvent event)

+studyTerms(ActionEvent event)

+flashCardsMethod(ActionEvent event)

+testMethod(ActionEvent event)

+saveFlashcards()

+showPopup()

+hidePopup()

+writeToFile(String term, String definition)

FlashCardsController

-ImageView backLogo

-Text tTerm

-Text tDefinition

-Button btnFlipCard

-Rectangle rFlashCard

-Button btnNextCard

-Button btnTest

-String term

-Strin definition

+initialize()

+backToStart(MouseEvent event)

+writeFlashCards(String string)

+flipCard(ActionEvent event)

+enterTest(ActionEvent event)

+nextCard(ActionEvent event)

+flipTransition(Rectangle rFlashCard)

+scaleTransition(Rectangle rFlashCard)

TestController

-ImageView backLogo

-Rectangle rTestCard

-Button btnT1

-Button btnT2

-Button btnT3

-Button btnT4

-Button btnNext

-TextArea taTestDefinition

+initialize()

+backToStart(MouseEvent event)

+checkAnswerB1(ActionEvent event)

+checkAnswerB2(ActionEvent event)

+checkAnswerB3(ActionEvent event)

+checkAnswerB4(ActionEvent event)

+next(ActionEvent event)

+writeTest()

+fillButtons()

+clearButtons()

+scaleTransition(Rectangle rTestCard)