

## Criterion B: Design

<i>Flashcard</i>	<i>Deck</i>	<i>FlashcardMaker</i>	<i>FlashcardPlayer</i>	<i>Driver</i>
String untranslated	Int numCorrect	JFrame frame	Int deckNumber	flashcardMaker build
String translated	Int numWrong	JTextArea aText	Boolean isAnswerVisible	
String q	ArrayList flashcardList	JTextArea qText	JButton correct	
String a		JPanel pnl	JButton incorrect	
		JMenuBar menu	JTextArea textArea	

Flashcard	Data Type	Description	Other
String untranslated	String	The untranslated word presented to be practiced.	
String translated	String	The translated word.	
String q	String	The string depicting the untranslated word.	
String a	String	The string depicting the translated one.	

Deck	Data Type	Description	Other
flashcardList	ArrayList	An ArrayList to keep track of all of the cards added to the deck.	
numCorrect	integer	Keeps track of number of words translated correctly.	
numWrong	integer	Keeps track of number of words translated incorrectly.	
numWrong	integer	Keeps track of number of words translated incorrectly.	

FlashcardMaker	Data Type	Description	Other
frame	JFrame	Java Swing interface frame	
aText	JTextArea	Java Swing text areas to input values.	
qText	JTextArea	Java Swing text areas to input values.	
pnl	JPanel	Java Swing panel to lay out all the objects previously mentioned.	
btn	JButton	Java Swing button to initiate another process.	
menu	JMenuBar	Java Swing Menu Bar at the top of the screen for dropdown of options.	

FlashcardPlayer	Data Type	Description	Other
deckNumber	int	Keeps track of the number of cards in the deck.	
isAnswerVisible	boolean	Boolean describing if the answer is visible.	
correct	JButton	Button to address if the answer made is correct.	
incorrect	JButton	Button to address if the answer made is incorrect.	
finish	JButton	Finish quiz button	
textArea	JTextArea	Text area (uneditable) displaying text from before.	

Main	Data Type	Description	Other
btn	JButton	Simple button to open the FlashcardMaker class and run it.	
frm	JFrame	Frame for the window.	
pnl	JPanel	Panel for the window.	
FlashcardMaker	Class	Calls the FlashcardMaker class.	NOTE: Only initiates it, does not set any variables yet.

### Proposed Classes

Class Name	Outline
Flashcard	Presents the simple form of the Flashcard, with an untranslated and translated word.
Deck	Keeps track of a set of flashcards to be quizzed on.
FlashcardMaker	Allows an interface for the user to add cards they need to practice.
FlashcardPlayer	Allows an interface for the user to test themselves on the vocab.
Driver	Executes the Main class.
Main	Initiates the program, welcomes user.

### Tests Required

Test Type	Nature of Test	Example
Cards can be added	Add data to a card, set it and	A card is made by a student,

	get words for it.	and they put in a French word and the correct translation.
Cards load properly	All cards display for a deck and are a part of the ArrayList.	All of the flashcards in the deck are presented through the entire quiz, perhaps 10 French words to English words.
Decks can be played	A deck is made, and the quizzing process works.	10 words are added to cards to be translated, the process can be done completely addressing which ones are right and wrong, etc.
Number of right and wrong displays	Finish a full quiz process – see end display.	10 cards, answered which ones were right and wrong, present as a number in the end.