

AVA An Automated Voice Activated Advisement System  
(Test Plan)

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*Use the "Dot Leader" feature available in a Word document to format the Table of Contents properly!*

## INTRODUCTION

### 1. Overall objective and success criteria:

The objective of this document is to plan how the testing process of the software is expected to proceed. Testing is one of the key components for a successful launch. This document aims to describe how we will test our software once it is created. Additionally, it will explain the testing methodologies or tools we are planning on using. Each module will be both tested independently, as well as, combined with other related modules.

Furthermore, this document will include a schedule of: the plan with which the modules will be tested, the order in which they will be tested, and the tester who will be performing the respective testing.

Our success criteria will be as follows:

- All modules must be tested using multiple different scenarios. In the event a bug has been found, the module will be fully retested to confirm no additional bugs were introduced in the process.
- Each module must perform as specified in the design and specifications documents. If a change is needed, it should be addressed by the formal Change Request(CR) procedure and revised within the updated specification.
- The testing schedule must account for possible bugs in the software, and include sufficient time for the debugging process.

	View point	Student	Will	Will	Will	Will
	GPA		GPA of all of a student's completed			

2. Summary of the integration plan - a list of tests, dates, and people responsible

Module Number	Module Name	Role of user	Objective	Dates	Tester Name
1.	Login	Student / MSU administration	Will allow the user to input their login information, and verifies with the database	11/16/22 to when?	Omar Obidat
2.	Connecting to School Database	Student / MSU administration	After a successful login, the user will be redirected to different pages based on their respective role	11/16/22 to when?	Omar Obidat
3.	Maintaining database connection	System	Will ensure the user is logged in in order to switch between pages, and will redirect to the login page upon logging out or being inactive for too long	11/16/22 ? - calculate? or simply display?	Omar Obidat
4.	View own GPA	Student	Will calculate the GPA of all of a student's completed	11/17/22 ? -	Dan Ferdetta

Figure #1 Description

	Peter courses	Student / MSU	courses with a valid letter grade listed.	11/17/22	Sumit Mistry
5.	Calculate possible GPA	Student / MSU administr ation	Will calculate a student's GPA with the addition of courses not yet completed that can be added in at the student's discretion with a manually inputted letter grade	11/17/22	Dan Ferdetta
6.	View Own Transcript	Student	Will be a place for <i>Allows</i> students to access all the courses they have completed in list form	11/17/22	Dan Ferdetta <i>Doesn't show Transcript also shows Grade Point Average?</i>
7.	Register for courses	Student	Will give students the ability to register for courses	11/17/22	Sumit Mistry
8.	View All available courses	Student/ MSU administr ation	Will allow students to view all available to take courses in a specific semester	11/17/22	Sumit Mistry

9.	Filter courses	Student / MSU administration	Will provide parameters for the students to filter courses by time, name, and suitability	11/17/22 ?	Sumit Mistry & Jesse Parron
10.	View course catalog	Student / MSU administration	Will allow students to view all available courses in the Computer Science/ Information Technology department	11/17/22 ?	Allen Asencio & Jesse Parron
11.	View course information	Student / MSU administration	Will allow students to view specific information regarding a course	11/17/22 ?	Allen Asencio & Jesse Parron
12.	Bypass course limits	MSU administration	Will allow the bypass of course prerequisites and course capacity limits	11/17/22 ?	Allen Asencio & Jesse Parron
13.	Add course	MSU administration	Will add a course to the course catalog	11/17/22	Allen Asencio & Jesse Parron

*What's "information"?*  
*What's "information"?*

14.	Update course	MSU administration	Will update a course in the course catalog	11/17/22	Allen Asencio & Jesse Parron
15.	View student's GPA	MSU administration	Will view any desired student's GPA transcript.	11/17/22	Dan Ferdetta
16.	View student's transcript	MSU administration	Will view any desired student's transcript verbally register for	11/17/22	Dan Ferdetta
17.	Language recognition	System	Will allow the system to recognize the input from the user that will allow the user to interact with all the other functions within the system.	11/18/22 Clarify!!	Omar Obidat
18.	Language recognition with GPA viewer.	Student	Allow the student to verbally request to view their GPA.	11/18/22	Jesse & Omar
19.	Language recognition	Student/ MSU	The student or administration will be able to verbally ask	11/18/22	Jesse & Omar

How is this different from 17, and 18?

	with GPA calculator .	administrat ion	for the student's GPA to be calculated.	11/18/22	Jesse & Omar
20.	Language recognition with transcript viewer.	Student	The student may verbally request to see their unofficial transcript.	11/18/22	Jesse & Omar
21.	Language recognition with registering for courses.	Student	The student may verbally register for courses using the academic advisement capabilities.	11/18/22	Jesse & Omar
22.	Language recognition with viewing all available courses.	Student/ MSU administr ation	The student or administration may verbally request to view all available courses.	11/18/22	Jesse & Omar
23.	Language recognition with filtering courses.	Student/ MSU administr ation	The student or administration may verbally filter the courses.	11/18/22	Jesse & Omar

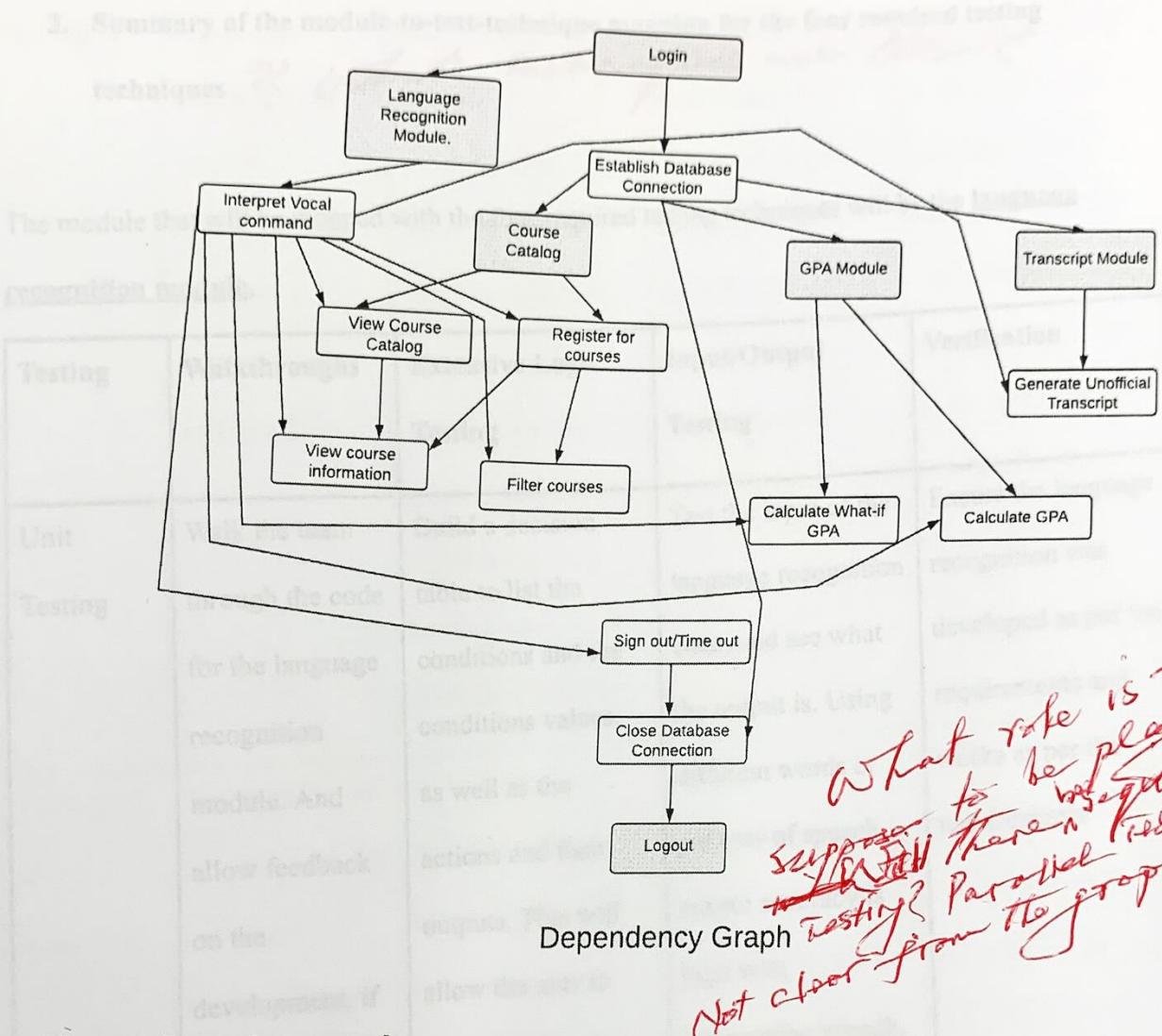


Figure 1. Dependency graph:

Some modules in the system are dependent on others to be complete and functioning properly. As illustrated in the dependency graph above. By following the dependency graph the testing process of the system will be easier to integrate.

3. Summary of the module-to-test-technique mapping for the four required testing techniques ?? *What techniques are these?*

The module that will be mapped with the four required testing techniques will be the language recognition module.

Testing	Walkthroughs	Extensive Logic Testing	Input/Output Testing	Verification
Unit Testing	Walk the team through the code for the language recognition module. And allow feedback on the development, if any errors or problems come up.	Build a decision table to list the conditions and the conditions values, as well as the actions and their outputs. This will allow the user to test the language recognition and ensure that it performs as intended in the decision table.	Test the input of the language recognition code, and see what the output is. Using different words or patterns of speech, ensure accuracy is high with interpreting speech.	Ensure the language recognition was developed as per the requirements and works as per the requirements specified in the requirements and specification documents.

Functional Testing	Check to see if all the features of the language recognition module are debugged and no issues with the interpretation of voice.	Based off the decision table run all the actions, to make sure all work to full functionality	Test the input of the language recognition code, and see what the output is. Using long phrases, patterns of speech, or quick conversations to ensure accuracy is high with interpreting speech.	Fully evaluate the whole module.
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#### 4. Summary of the monitoring, reporting, and correcting procedures

After testing, each team member ~~is expected~~ will submit a full report explaining the error found and possible solutions. Once each member of the team completes the testing phase, the team can work together on resolving the bugs found and reinitiating the testing phase to provide a high quality software that is bug free using the below tools and techniques.

The team will be utilizing a web-based application called Trello. It allows for lists to be made with progression indicators. This will allow the team members to notify each other of the progress they have made. Not only that, but lists of bugs could be made and added to anytime. All work that is completed is updated with a green check mark, and indicates who has completed it with their initials embedded. Trello will allow us to work efficiently and be organized by allowing us to have clear expectations and understandings.

between all team members. Lists such as: what is still being coded, what has a bug, what can be tested, the type of tests being performed, and what modules are fully implemented and correct as per the specifications requirements documentation. These are all examples of the type of lists that will be implemented in our Trello workspace. A separate list will be utilized to specify which modules need to be corrected and can be picked up by other members who are finished.

## 5. Proposed dates for submission of individual test reports

<u>Individual</u>	<u>Proposed Individual Test Report Date</u>
Omar Obidat	November 19th, 2022
Jesse Parron	November 19th, 2022
Allen Asencio	November 20th, 2022
Dan Ferdetta	November 20th, 2022
Sumit Mistry	November 20th, 2022

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are for?

Figure #: Description

## DISCUSSION

### 1) Defense for the integration plan (about half a page)

For our integration plan we decided to start with the database and login module because other modules are dependent on it working properly. Each module is going to be tested separately and created as functions to allow us to be able to test them separately with text input and as a complete system with the language recognition module. Each team member was assigned testing based on their experience in that field. Omar and Jesse have experience with language recognition and database integration that's why he will handle the testing of related modules. Allen has experience in security testing that is why he will be handling the administration view testing. Danial and Sumit have experience in front end testing that is why Danial will be testing all the modules that are related to the GPA. and Sumit will be testing modules related to the course catalog. The dates were chosen to allow for any bugs to be handled before the deadline while also allowing each member to work on their respective modules without waiting for another member to finish theirs.

### 2) Details of the tests with objective and success criteria for each test or group of tests

	Module	Test Case	Expected Result	Actual Result	Test Status	Test Input Data	Comment

1	Login connection	Successful login minutes	The user is redirected to their designated role's home page				
	Login	Unsuccessful login due to having incorrect credentials	The user is unable to login and an error message is displayed				
2	Connecting to School Database	Login is accepted	Connection proceeds				
	Connecting to School Database	Login is not accepted	Connection does not proceed				
3	Maintaining database connection	User continues interacting	User stays logged in and an error is displayed				
6	Maintaining database connection	User chooses to log out	User is logged out				

Review the rest of the document while bearing in mind the foregoing questions/concerns/issues and address them appropriately!!