

Use Case: Student starting the app

Steps:

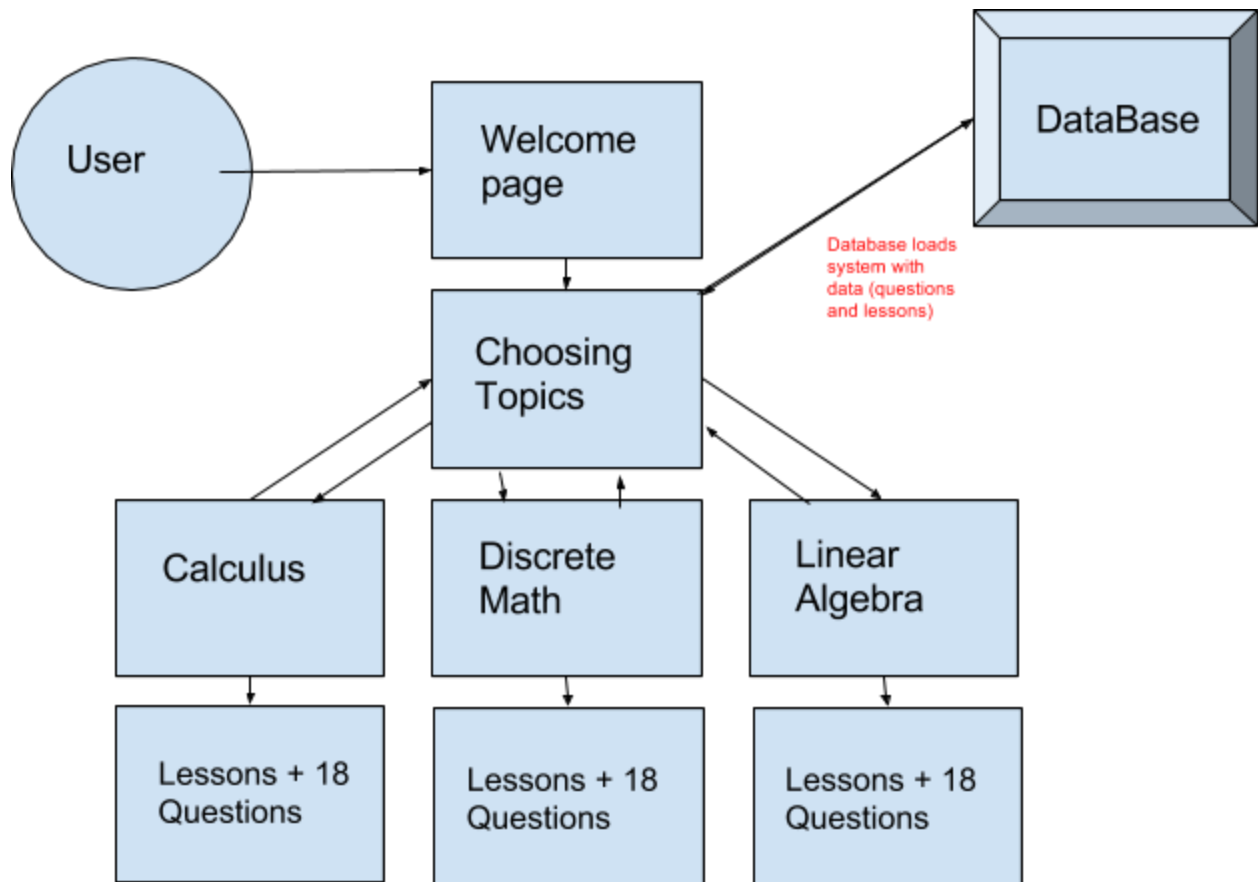
1. User starts on the welcome page and
2. the “play” button at the welcome page directs users to topic page

User Case: Students choose topics and take quiz

Precondition: the app has loaded all the topic from the file

Steps:

1. User can choose topics that will help them learn critical math skills
 - a. Calculus
 - b. Linear Algebra
 - c. Discrete Math
2. Within each chosen topic, there are three smaller sub-topics associated with the main topic
3. Each smaller sub-topics consists of a lesson that will teach users how to compute questions to develop critical thinking
4. User can then answer questions after each lesson
5. The questions are entirely made up of multiple choices
 - a. The question will be randomize by the application so users can not simply just remember which answer are correct
 - b. The correct answer with explanation will be shown after user has answered with the correct solution
6. After the quiz, user will receive stars and the progress of user’s learning will be saved
7. User can choose to continue learning the same topic or move to different main topic



Lessons:

- We have three main categories for user to choose from
 - Calculus
 - Discrete Math
 - Linear Algebra
- With each main topic we have three sub-topics
 - For example, in Linear Algebra, the sub-topics are 1) Vectors, 2) Matrix, 3) Determinants
 - Within each sub-topics, we have 6 questions and a total of 18 questions for each main topic
 - Users first read and understand the lessons before moving on to do the questions
 - After users have successfully complete and answer the questions, they are given stars and their progresses are saved
- Sample Travel plan
 - Welcome page -> Linear algebra -> Determinants -> Lesson -> Quiz -> Score Page

Change Lessons:

- Users can simply back to the topic page and choose other topics
 - If they are done with the calculus lessons, they can simply back to topic choosing page and choose the remaining two main topic

End Lessons:

- Users are free to quit the application or leave certain main topics and sub-topics anytime they want
 - However, the progress of the quiz and lessons are only saved when they have successfully complete each task