

Java Apache Netbeans 25 Application Development

Guidelines:

- Create an application in Apache Netbeans 25 (Java) utilizing GUI, Maven JavaFX

Proposed Application Title: MathSnap: Flashcard Drills

Overview/Brief Description:

MathSnap: Flashcard Drills is a mathematical flashcard that aims to help **toddlers aged 2 to 5** develop their mathematical skills. Users can choose which of the basic four mathematical operations (addition, subtraction, multiplication, and division) they like to answer and how difficult (easy: 1-digit numbers only, moderate: 1-digit and 2-digit numbers, hard: 2-digit numbers only) the problems will be. Upon launching the application, users are greeted with a simple "Start" button that transitions directly into the flashcard drill interface. Using the **flashcard gimmick**, random numbers will flash on the screen, and the user needs to input the answer. After entering the user's answer, immediate feedback of the correct answer will flash and show to the user after each given problem to support continuous learning.

Application Flow:

"C:\Users\leirno\Documents\Freelance\MathSnap\src\main\resources\com\mycompany\mathsnap\imgs\Application Flow.png"

APPLICATION FLOW (USER INTERFACE)	
1ST	Welcome Screen of MathSnap: Flashcard Drill [Click to Start Button]
2ND	Display the basic 4 Mathematical Operations [4 buttons to choose]
3RD	Display the Numeral Problem (based on the chosen operation) Note: Sa ilalim noon, may nakalagay na input box. Doon ilalagay ang sagot ng user and then click enter to submit the answer. Magrered/green yung outline ng input box kapag mali or tama and sagot. (<i>color effect</i>)
4TH	After clicking the enter, lalabas yung tamang sagot (<i>flip effect</i>) and note kung correct "Nice/Awesome" or wrong "Try again." Note: With the same UI, may 2 options/buttons to go back 'HOME' or 'NEXT' (continuous; same level and same operation)
Continuous process siya.	

Notes/Remarks:

- Netbeans 8.2
- May include 'BACK' button in every interface para may option si user to go back.
- GUI must be aligned with child-oriented button designs.
- Adjust font sizes and colors to maintain simplicity for young users.
- Implement feedback on whether the answers were correct after each drill.

Suggested Color Palette:

Element	Color	Hex Code	Use For
Background	Light Sky Blue	#B3E5FC	Main background to keep it light and calm
Primary Buttons	Bright Yellow	#FFEB3B	"Start", "Next", "Try Again" buttons
Action Highlights	Soft Red	#EF5350	Wrong answer feedback or cancel button
Correct Feedback	Lime Green	#8BC34A	Flash when the answer is correct
Text on Light BG	Deep Blue	#1A237E	Question/Answer text to keep it readable
Flashcard BG	White	#FFFFFF	Keeps math problems clean and simple

Easy – Mint Green **#CFF5E7**
Medium – Coral Orange **#FF9B42**
Medium – Electric Purple **#BF5AF2**

Mockup Reference:

"C:\Users\leirmo\Documents\Freelance\MathSnap\src\main\resources\com\mycompany\mathsnap\imgs\mockup reference.png"