EXPERIMENT-8

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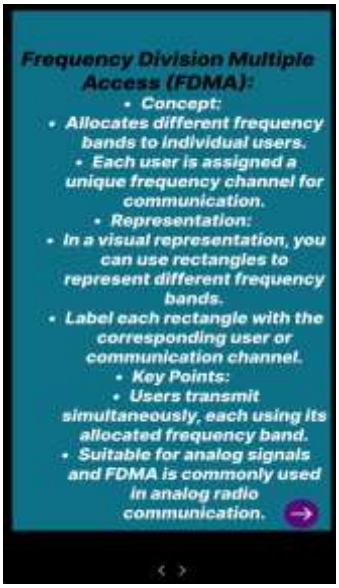
10. Create a visual representation in Figma showcasing the differences between various multiple access techniques.

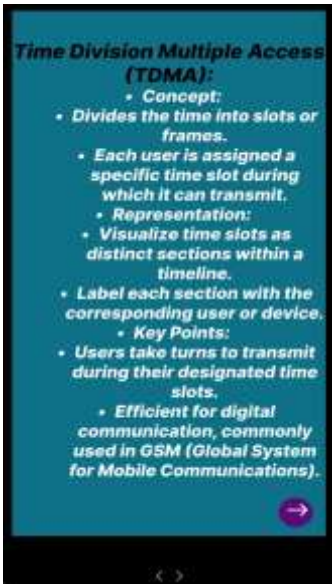
Aim: To create a visual representation in Figma showcasing the differences between various multiple access techniques.

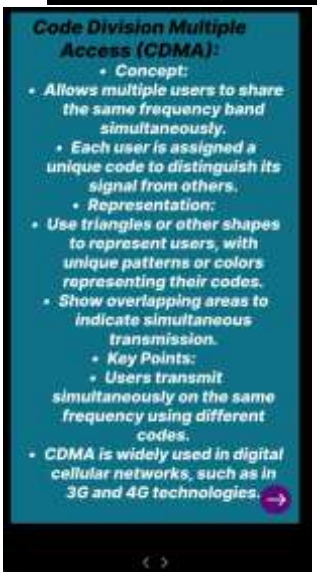
Procedure:

1. Open Figma
2. Create a new file
3. Select the Frames
4. Fill in the content that is required for presentation
5. Design Visual Elements
6. Make it Interactive
7. Add Annotations and Explanations
8. Incorporate Multimedia
9. Storyboard Animation
10. Review and edit the Prototype
11. Save and Share **Design:**


Laptop
Differences between various multiple access techniques.
ENTER →

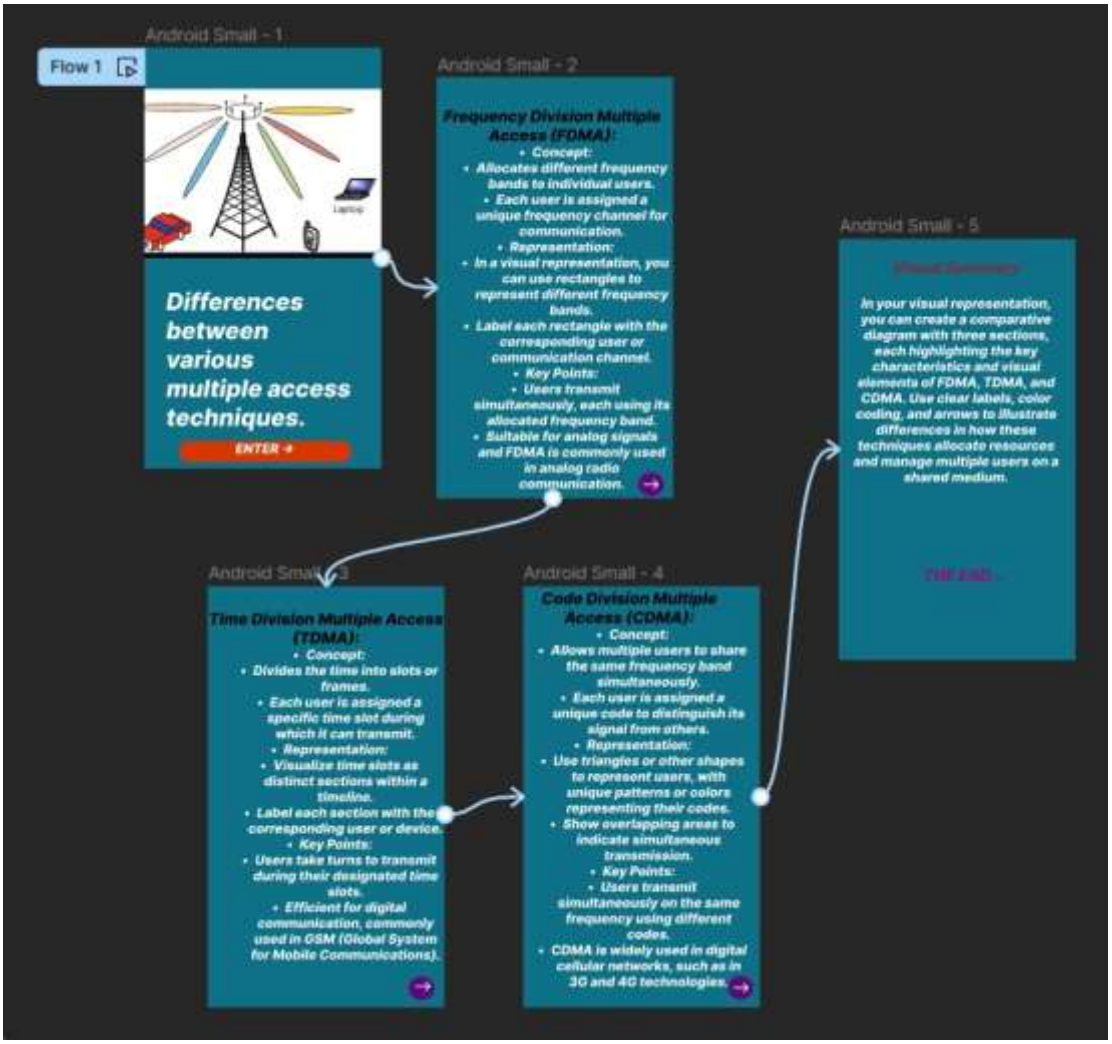

Frequency Division Multiple Access (FDMA):
• Concept:
• Allocates different frequency bands to individual users.
• Each user is assigned a unique frequency channel for communication.
• Representation:
• In a visual representation, you can use rectangles to represent different frequency bands.
• Label each rectangle with the corresponding user or communication channel.
• Key Points:
• Users transmit simultaneously, each using its allocated frequency band.
• Suitable for analog signals and FDMA is commonly used in analog radio communication.


Time Division Multiple Access (TDMA):
• Concept:
• Divides the time into slots or frames.
• Each user is assigned a specific time slot during which it can transmit.
• Representation:
• Visualize time slots as distinct sections within a timeline.
• Label each section with the corresponding user or device.
• Key Points:
• Users take turns to transmit during their designated time slots.
• Efficient for digital communication, commonly used in GSM (Global System for Mobile Communications).


Code Division Multiple Access (CDMA):
• Concept:
• Allows multiple users to share the same frequency band simultaneously.
• Each user is assigned a unique code to distinguish its signal from others.
• Representation:
• Use triangles or other shapes to represent users, with unique patterns or colors representing their codes.
• Show overlapping areas to indicate simultaneous transmission.
• Key Points:
• Users transmit simultaneously on the same frequency using different codes.
• CDMA is widely used in digital cellular networks, such as in 3G and 4G technologies.


Visual Summary
In your visual representation, you can create a comparative diagram with three sections, each highlighting the key characteristics and visual elements of FDMA, TDMA, and CDMA. Use clear labels, color coding, and arrows to illustrate differences in how these techniques allocate resources and manage multiple users on a shared medium.

Prototype:



Result:

Hence created a visual representation in Figma showcasing the differences between various multiple access techniques.