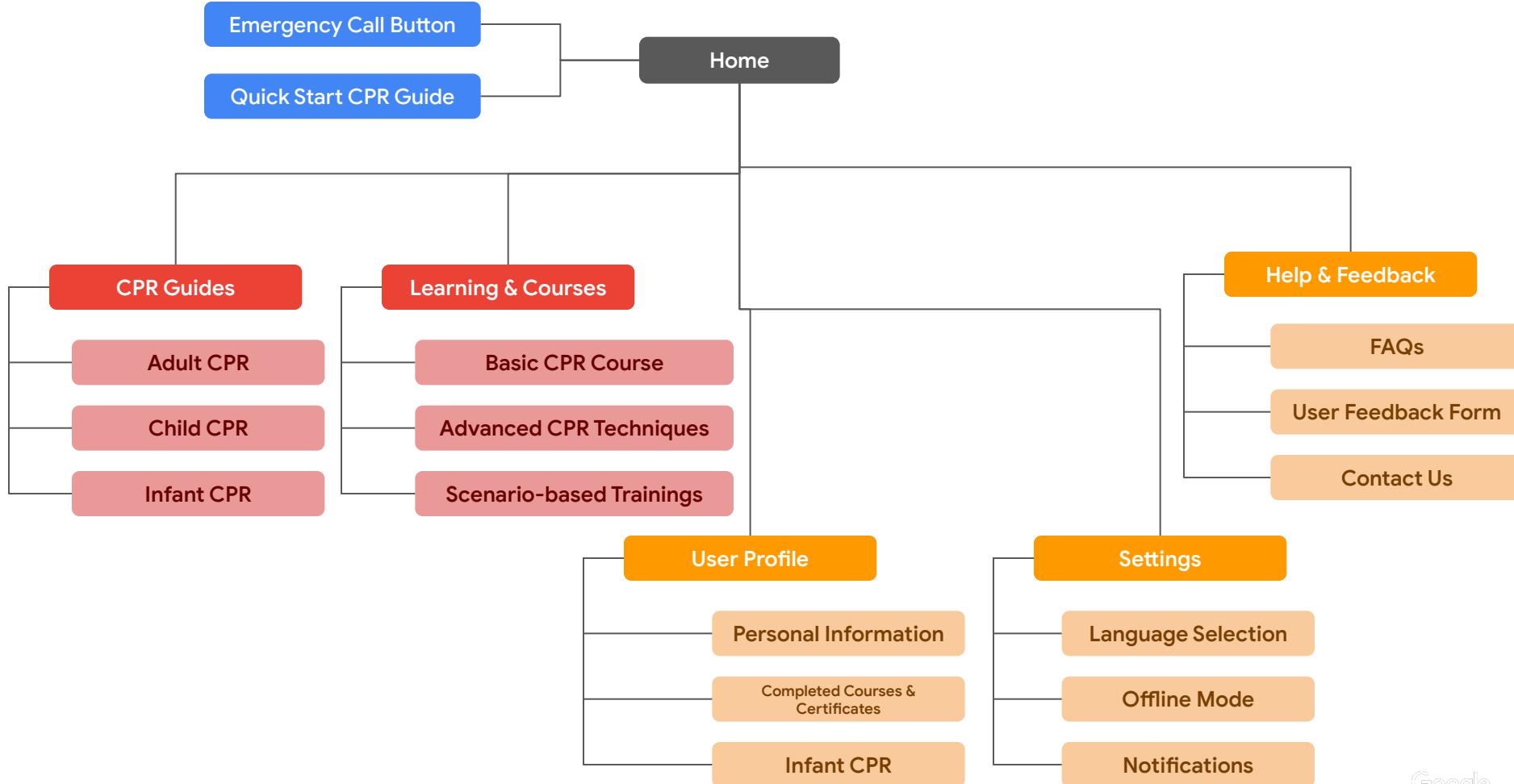


CPR App & Responsive Website

Mayur Chopra

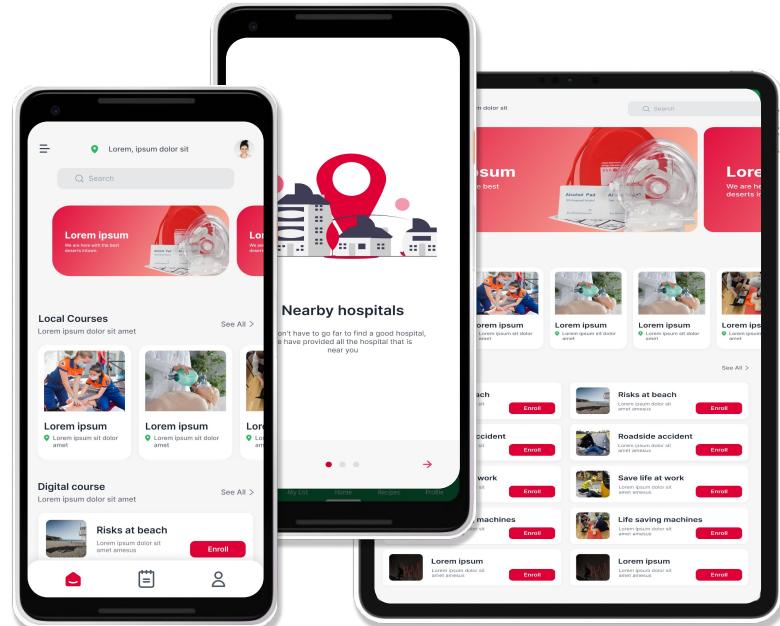


Project overview



The product:

Offering a life-saving blend of immediate CPR guidance and in-depth educational resources, the CPR Assistant app and website empower users globally with accessible, user-friendly tools for both emergency response and comprehensive learning within a supportive community framework.



Project duration:

Oktober 2023

Project overview



The problem:

Widespread bystander hesitancy and lack of confidence in performing CPR during cardiac emergencies due to limited knowledge and accessibility to simplified, quick, and clear instructions.



The goal:

To diminish the knowledge gap and boost bystander intervention by providing immediate, straightforward, and accessible CPR guidance through the app and website, while also cultivating a community and platform for extended learning and collaboration in emergency medical response education.

Project overview



My role:

Product Designer, leading and producing all material for the the UXR & UXD of app and the responsive website design. Conception to final delivery.



Responsibilities:

Conducting interviews, paper and digital wireframing, low and high-fidelity prototyping, conducting usability studies, accounting for accessibility, iterating on designs, determining information architecture, and responsive design.

Understanding the user

- User research
- Personas
- Problem statements
- Competitive audit
- Ideation

User research: summary



Embarking on a comprehensive user research journey, diverse personas were meticulously developed, highlighting varied user demographics, needs, and challenges in employing digital aids during CPR emergencies and learning. Through empathy maps, user journey maps, and a focused exploration into user motivations and pain-points, the research illuminated critical insights, directing the design and functionality of the CPR Assistant app and website towards maximized usability, accessibility, and user-centered value across different scenarios and user types.

Persona 1: “The Prepared Parent”

Problem statement:

Natasha Patel, a diligent parent, urgently needs a straightforward and rapid digital guide for child-focused CPR, desiring a tool that not only provides instant, clear instructions during emergencies but also supports ongoing learning to enhance her preparedness and confidence.



The Prepared Parent

Name: Natasha Patel
Age: 34
Education: Bachelor's in Business Administration
Hometown: Mumbai, India
Family: Married, toddler & expecting another
Occupation: Marketing Specialist

Quote
"I need to be ready for anything for my family's sake."

Goals

- Ensure the safety of her growing family.
- Have a reliable emergency reference at hand.
- Build confidence in handling emergency situations.

Frustrations

- Lack of accessible real-time CPR guidance during emergencies.
- Difficulty in remembering the correct CPR steps.
- Fear of not acting swiftly enough in critical situations.

Description

Natasha balances a hectic job and a young family. She seeks tools that can empower her to face emergencies confidently, especially concerning her children's safety.

Persona 2: “Outdoor enthusiast”

Problem statement:

Outdoor enthusiast Gabriel Nyoni requires an immediate, reliable CPR guide in isolated settings, needing a tool that ensures quick, clear instructions to confidently and effectively navigate critical cardiac emergencies where time is paramount.



The Outdoor Enthusiast

Name: Gabriel Nyoni
Age: 42
Education: Master's in Environmental Science
Hometown: Cape Town, South Africa
Family: Married with two teenage kids
Occupation: Environmental Researcher

Quote
“Nature is unpredictable, but my readiness shouldn't be.”

Goals

- Ensure safety during remote field expeditions.
- Be a source of knowledge and assistance for his team.
- Instill confidence in his family during outdoor trips.

Frustrations

- Limited access to emergency services in remote locations.
- Difficulty in maintaining updated CPR techniques.
- Concerns over the welfare of his team in the wilderness.

Description

Gabriel frequently ventures into nature for work and leisure. He acknowledges the risks and wants to ensure he's always prepared, making a reliable CPR guide vital.

Persona 3: “The Community Leader”

Problem statement:

Aisha Al-Mansoor, deeply ingrained in her community leadership role, confronts the challenge of ensuring swift and accurate CPR administration in her densely populated neighborhood, necessitating a digitally accessible, multilingual CPR guide that not only delivers immediate and clear instructions during emergencies but also provides a platform for continual learning and community knowledge-sharing in diverse languages and contexts.



The Community Leader

Name: Aisha Al-Mansoor
Age: 25
Education: Pursuing Masters in Social Work
Hometown: Amman, Jordan
Family: Engaged, living with her fiancé
Occupation: Community Organizer

Quote
“Empowering my community starts by empowering myself.”

Goals

- Organize safe community events and outings.
- Become a trusted figure in her community.
- Continuously update her emergency response skills.

Frustrations

- Navigating through overwhelming amounts of unstructured CPR information online.
- Finding trustworthy and comprehensive emergency resources.
- Ensuring everyone in her community events feels safe and protected.

Description

Aisha's commitment to her community runs deep. By ensuring she's equipped for emergencies, she hopes to build trust and show her dedication to everyone's safety.

Persona 4: The Resilient Villager

Problem statement:

In the remote village, Samuel Adebayo grapples with the scarcity of immediate professional medical intervention during cardiac emergencies, underscoring the urgent need for an offline-accessible, straightforward CPR assistance tool that provides clear, auditory instructions and guides him to perform effective resuscitation confidently, even in the absence of traditional learning resources or immediate professional help.



The Resilient Villager

Name: Samuel Adebayo
Age: 52
Education: Primary School (did not complete due to familial obligations)
Hometown: Cape Town, South Africa
Family: Widowed, 3 adult children, several grandchildren
Occupation: Local farmer & community elder

Quote
"Challenges do not define our limits; our spirit does"

Goals

- Ensure the safety and health of his community, especially the young ones.
- Pass on valuable knowledge and skills to the next generation.
- Advocate for accessible resources and tools for his community's unique needs.

Frustrations

- Limited access to modern medical facilities and resources.
- Reliance on others for reading and accessing certain information due to his blindness.
- Lack of specialized tools tailored for visually impaired individuals in emergency situations.

Description

Samuel, despite being blind, is a beacon of strength in his community. His life in a remote area has instilled a determination to protect and educate those around him. He relies heavily on audio cues and needs tools that can guide him vocally in emergencies, making an accessible audio-intensive CPR app invaluable.

Competitive audit

An audit of a few competitor's products provided direction on gaps and opportunities to address with the CPR app.

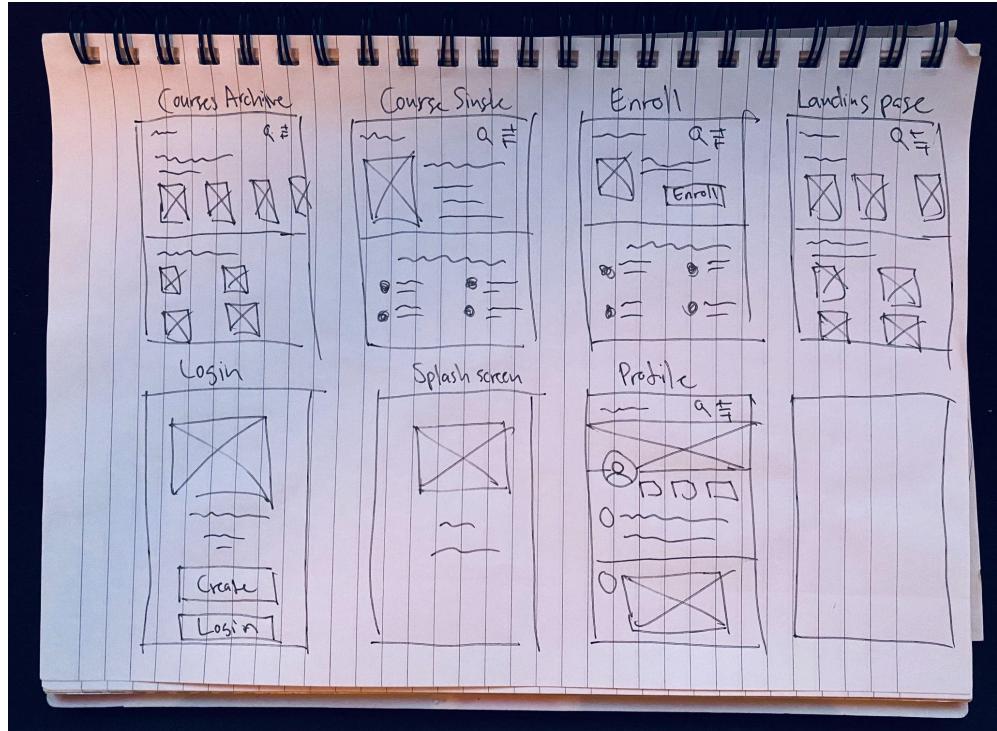
Competitive audit									Goal: Compare the user experience of each competitor's website and potential app	
	General information								First impressions	
	Competitor type	Location(s)	Product offering	Price (\$ - \$\$\$)	Website (URL)	Business size (small, medium, large)	Target audience	Unique value proposition	Desktop website experience	App or mobile website experience
CPR (our company)	This is us	Europe	CPR Guidance App	Doesn't exist	Doesn't exist	General Public	Trying to find that out		Doesn't exist	Doesn't exist
Hands-Only CPR (AHAU)	Direct	USA	CPR Guidance App	\$	www.handsonlycpr.org	Large	General Public	Official endorsement	Outstanding	Good
Leben retten (German H)	Direct	Germany	CPR Guidance App	\$\$\$	www.lebenretten.de	Medium	General Public	Multilingual, Comprehensive Guide	Outstanding	Needs work
Pocket CPR (Bio-Detek)	Direct	USA	CPR Guidance App	\$\$\$	www.pocketcpr.com	Small	Healthcare Professionals	Advanced Features	Outstanding	Outstanding
Pocket First Aid & CPR (A)	Direct	USA	First Aid & CPR Guide App	\$\$\$	www.firstaidcpr.org	Large	General Public	Comprehensive, Multilingual	Good	Good
Interaction										
Features		Accessibility		User flow		Navigation		Visual design		Content
Doesn't exist		Doesn't exist		Doesn't exist		Doesn't exist		Doesn't exist		Descriptiveness
Good		Good		Good		Good		Good		Good
+ Diverse inventory management features - Lacks some advanced analytics tools		+ Good screen reader support - Some images lack alt text		+ Easy product addition and checkout - Slightly steep learning curve for non-Shopify users		+ Clear CTAs and intuitive menu structure - Deeply nested menu items in some sections		+ Strong brand consistency - May come off as too "corporate" for smaller brands		Good
Good		Needs work		Okay		Okay		Outstanding		Good
+ Comprehensive set of features with industry-specific customizations. - Interface may feel cluttered with too many options		+ Basic keyboard navigation supported - Lacks comprehensive screen reader support; missing alt text on many items		+ Logical flow from product selection to checkout. - Occasional unexpected pop-ups disrupt the flow.		+ Main menu is clear and concise. - Sub-menus can be confusing and not intuitively organized.		+ Strong brand consistency - Overall brand feels a bit dated; could benefit from a refresh.		Good
Outstanding		Good		Good		Good		Good		Good
+ Offers a multitude of features from sales analytics, inventory management to online selling. - With so many features, there might be a learning curve for some users.		+ Generally well-optimized for screen readers, though some minor issues. - Some advanced features might lack comprehensive screen reader support.		+ Smooth flow from product selection, providing clear instructions to purchase. - As the product sub-menu levels increase, users might need some time to find specific functions.		+ Clear, concise, and logically grouped menu items. - Depth of sub-menus might be overwhelming to some users.		+ Consistent use of company colors and logo. - Overall brand feels a bit dated; could benefit from a refresh.		Good
Outstanding		Okay		Good		Outstanding		Good		Outstanding
+ Comprehensive set of features, from inventory management to customer loyalty. - Some features might be overkill for very small businesses or individual sellers.		+ Basic accessibility features in place like text scaling and contrast. - Could benefit from more comprehensive screen reader support and improved keyboard navigation.		+ Smooth onboarding and checkout process. - Some areas of the application, like settings or advanced features, could have a clearer flow.		+ Clear categorization and logical grouping of features. - Might take new users some time to get fully acquainted with the platform.		+ Clean and consistent branding, easily recognizable. - Somewhat generic in the crowded POS marketplace.		Good
Outstanding		Good		Good		Good		Good		Good
+ Clean and concise descriptions of all products and services offered. - Some sections are too text-heavy, which could benefit from infographics or videos.		+ Detailed product features with examples - Some sections may alienate new users		+ Professional, confident - Occasionally overly salesy		+ Professional and straightforward. - Lacks a personal touch; may come off as too dry.		+ Detailed product and feature descriptions. - Some sections are too text-heavy, which could benefit from infographics or videos.		Good
Good		Needs work		Okay		Good		Good		Good
+ Friendly, professional, and customer-centric. - Occasional marketing jargon can make some content harder to decipher for laymen.		+ Clear and concise descriptions of all products and services offered. - Some sections, especially those directed at larger businesses, can get quite technical.		+ Friendly and approachable tone across all content. - Can sometimes veer into technical jargon.		+ Descriptions are generally clear and convey the value of features. - Some sections might benefit from more elaborate explanations or use-case examples.		+ Friendly and approachable tone across all content. - Can sometimes veer into technical jargon.		Good

Click to view the full [competitive audit](#)



Ideation

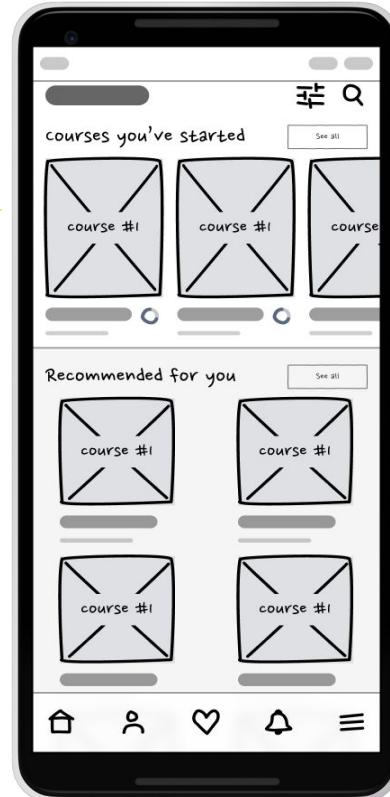
I did a quick ideation exercise to come up with ideas for how to address gaps identified in the competitive audit. My focus was specifically on **emergency situations, education and the community functionality.**



Digital wireframes

After ideating and drafting some paper wireframes, I created the initial designs for the CPR app. These designs focused on the user being able to signing up to courses.

Top half of home screen acts like a courses that the users already has enrolled into

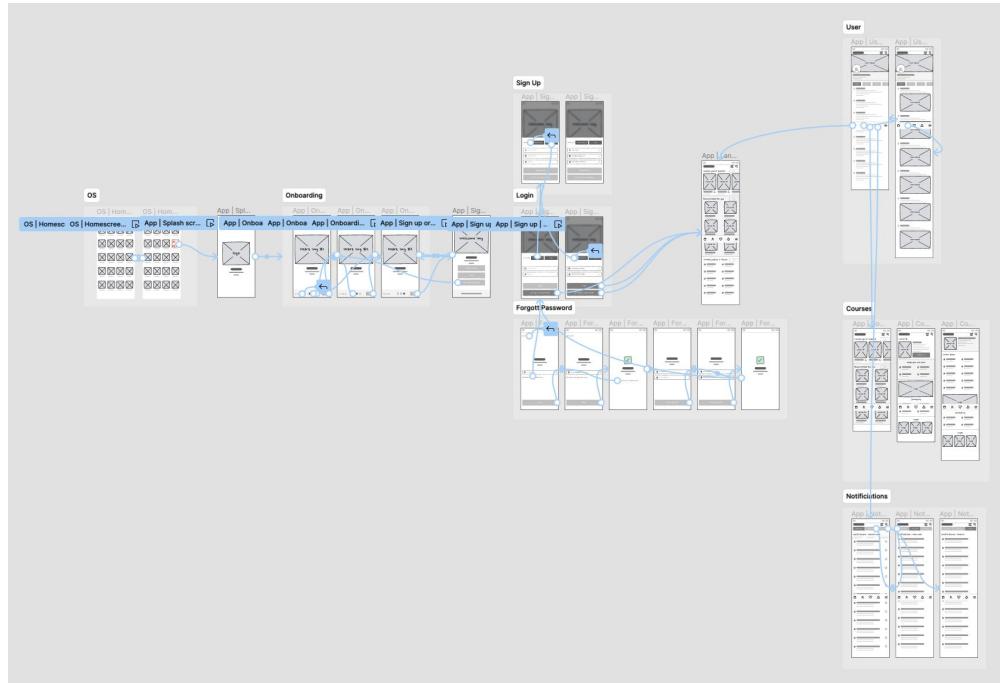


Easy access to app features from global navigation

Low-fidelity prototype

To prepare for usability testing, I created a low-fidelity prototype that connected the user flow of viewing an item about to see if they could find a CPR course.

View [CPR app low-fidelity prototype](#)



Usability study: parameters



Study type:

Unmoderated usability study



Location:

Cyprus, remote



Participants:

4 participants



Length:

30-60 minutes

Usability study: findings

These were the main findings uncovered by the usability study:



1

Multilingual Support

All users found it essential for the courses to be available in multiple languages, catering to their diverse community. Some might not even be able to read.



2

Offline Access

All users were often operating in areas with limited connectivity, emphasized the need for offline access to the CPR course



3

Feedback Mechanism

All users noted the importance of a feedback option to continually tailor the course content for their community's evolving needs.

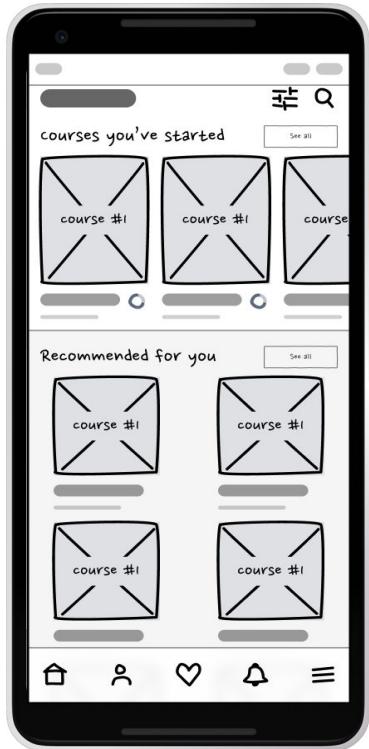
Refining the design

- Mockups
- High-fidelity prototype
- Accessibility

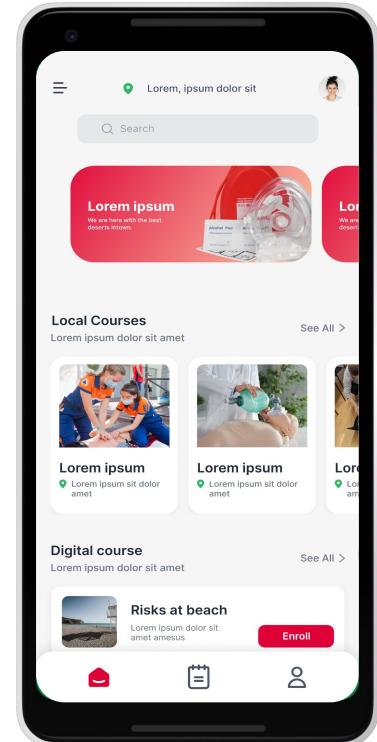
Mockups

Based on the insights from the usability studies, I applied design changes like providing a clear section from the home screen to be able to buy products related to live saving activities.

Before usability study



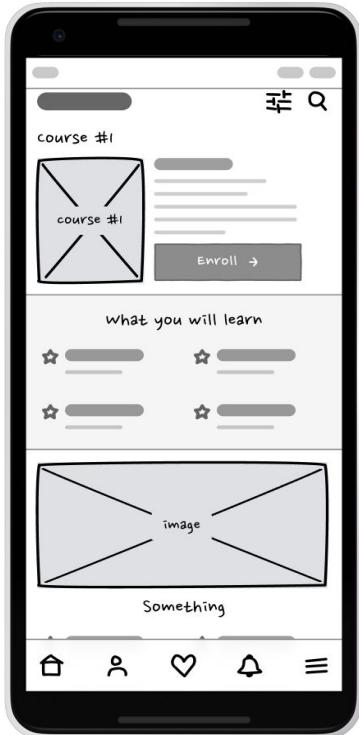
After usability study



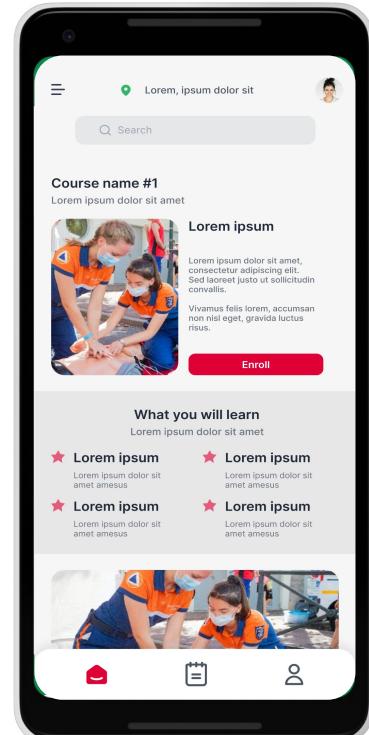
Mockups

Additional design changes included adding an option to add a small description under the title that can provide good feedback to the user.

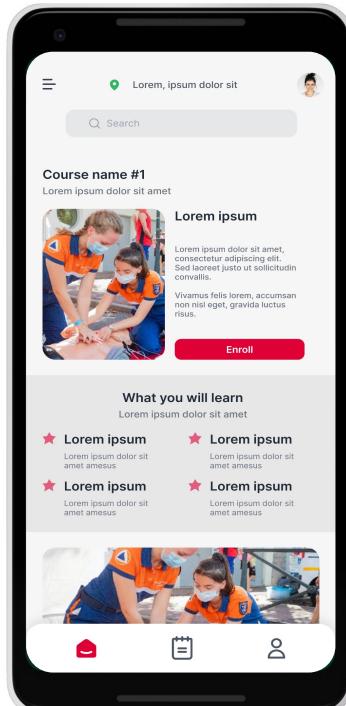
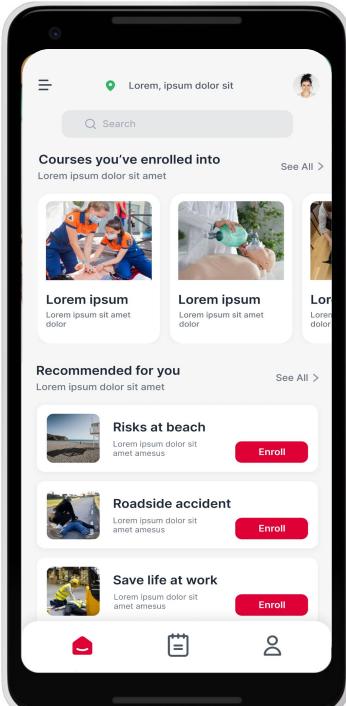
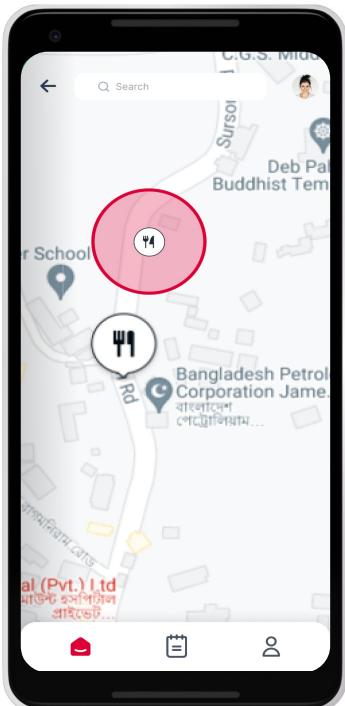
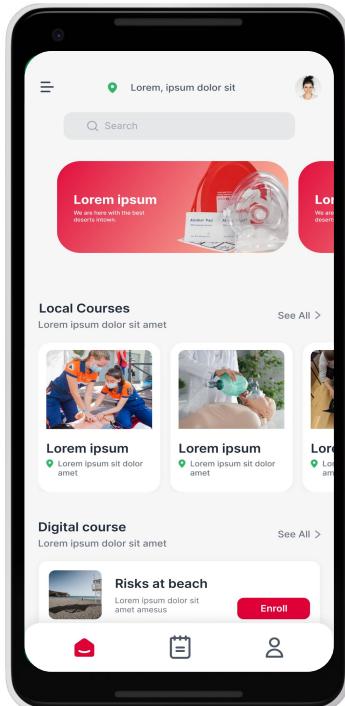
Before usability study



After usability study



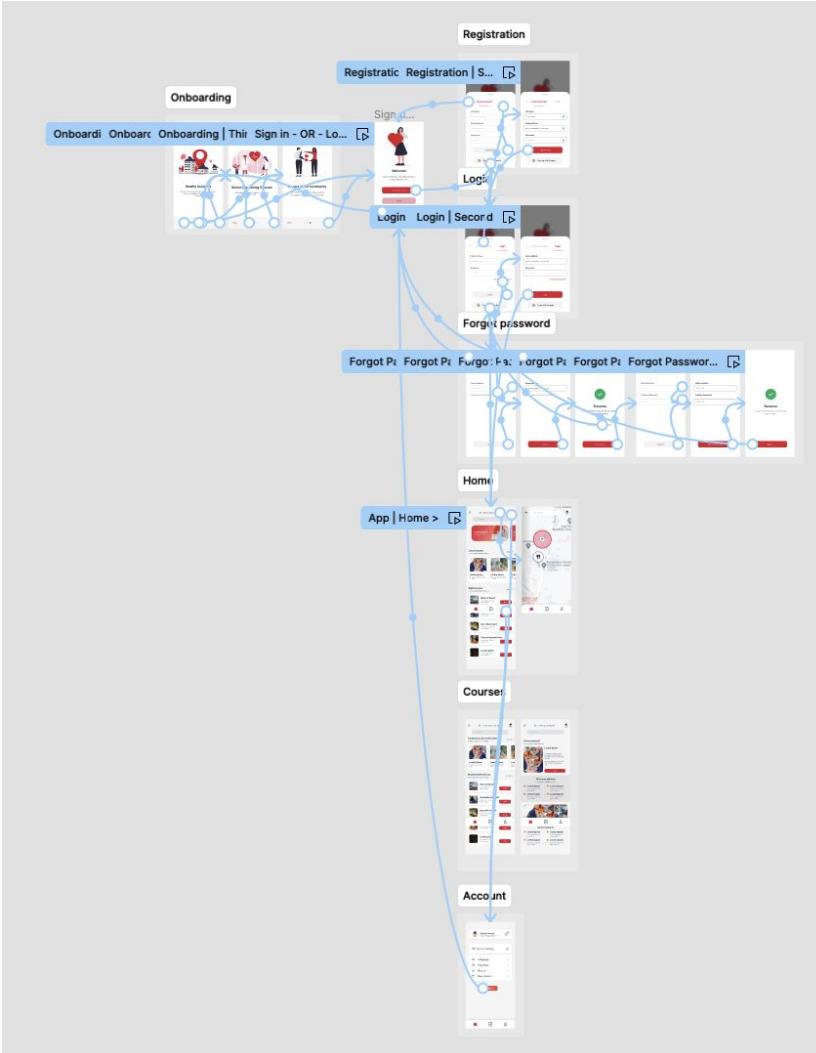
Mockups



High-fidelity prototype

The high-fidelity prototype followed the same user flow as the low-fidelity prototype, including design changes made after the usability study.

[View the CPR app high-fidelity prototype](#)



Accessibility considerations

1

Multimodal Interaction:

Enable various content formats (text, audio, visual) and implement voice navigation, ensuring accessibility for visual, auditory, and cognitive impairments.

2

Offline Accessibility:

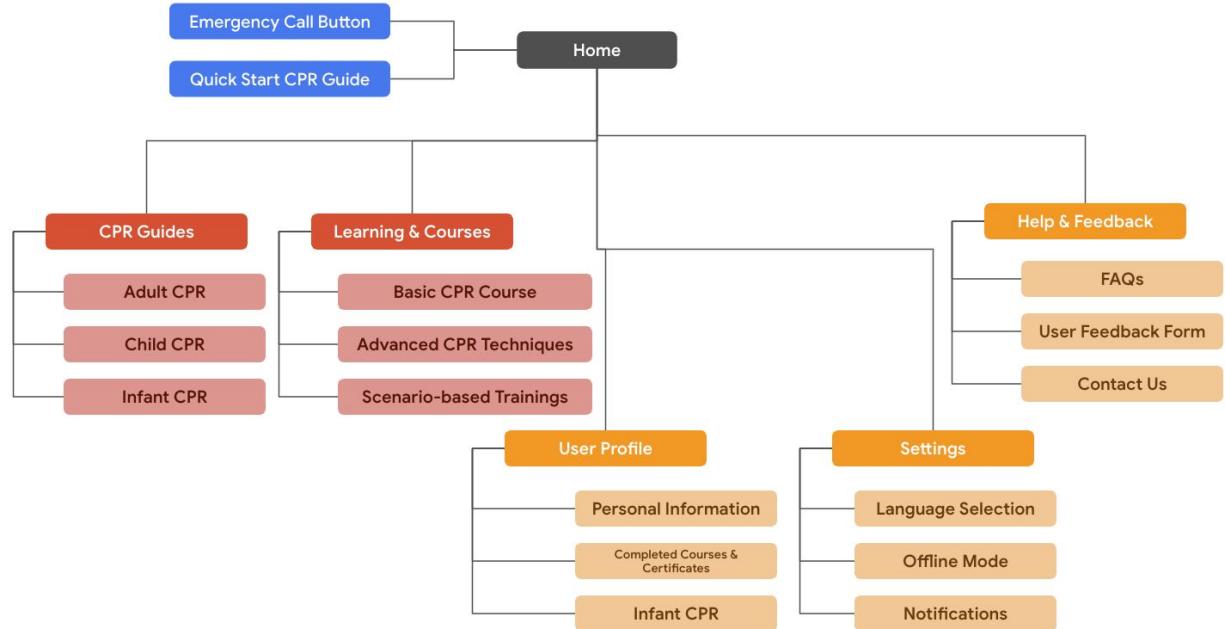
Ensure critical CPR information and courses are accessible offline, supporting users in remote or low-connectivity areas and providing reliability during emergencies.

Responsive Design

- Information architecture
- Responsive design

Sitemap

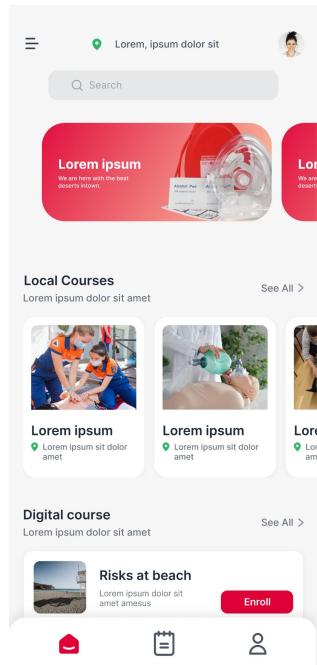
With the app designs completed, I started work on designing the responsive website. I used the CPR sitemap to guide the organizational structure of each screen's design to ensure a cohesive and consistent experience across devices.



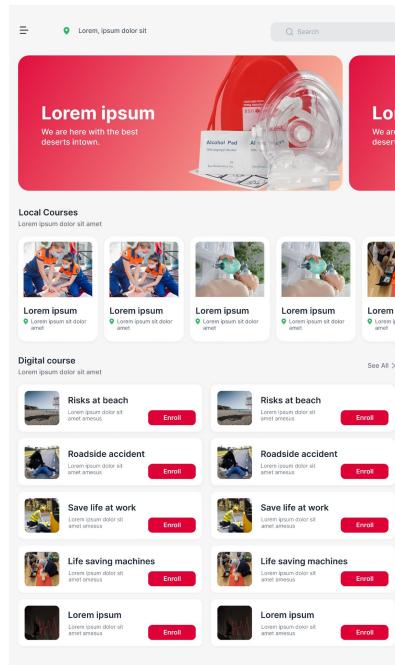
Responsive designs

The designs for screen size variation included mobile, tablet, and desktop. I optimized the designs to fit specific user needs of each device and screen size.

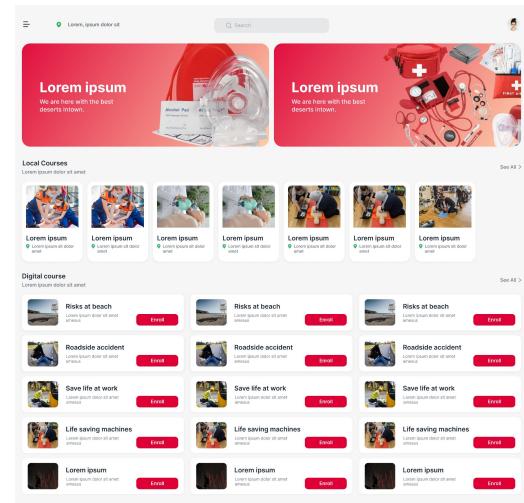
Mobile website



Tablet



Desktop



Going forward

- Takeaways
- Next steps

Takeaways



Impact:

The project democratizes access to life-saving CPR knowledge through a user-friendly and inclusive digital platform, empowering communities and individuals to confidently navigate emergency situations.



What I learned:

This endeavor has underscored the paramount importance of user-centered, accessible design and iterative testing in developing emergency response tools, revealing how diverse user needs and cultural contexts significantly influence digital health resource interaction and effectiveness.

Next steps

1

Conduct research on how successful the app is in reaching the goal to create communities that autonomously is educating each other in life saving technics, such as CPR.

2

Add more educational resources for users to learn about CPR and saving life in emergency situations.

3

Provide incentives and rewards to users for successfully learn more in life saving technics.

Let's connect!



Thank you for your time reviewing my work on the CPR app and website! If you'd like to see more or would like to get in touch, my contact information is provided below.

<https://www.linkedin.com/in/mayurchopra/>