CodeOn – Web development tutoring app for youngsters

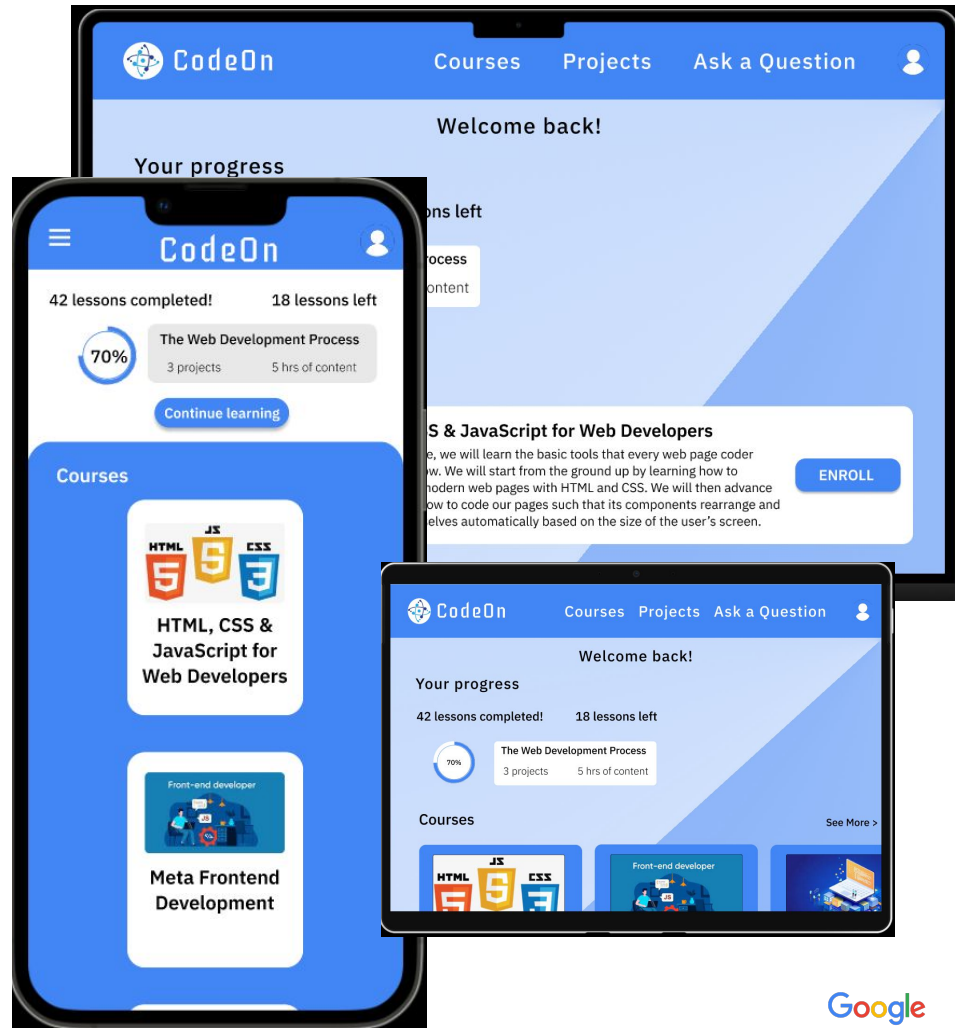Anupama Vidyasagar

Project overview

The product:

CodeOn is a software application designed to help users learn the skills and techniques required to develop web applications. Its primary target users include those who want to build a career in web development.

Project duration:

April 2023 to May 2023

Google

Project overview

The problem:

In this growing era of technology, youngsters find it difficult to survive without these essential skills. We designed CodeOn with the aim of making web development education accessible, convenient and effective for all learners of all skill levels.

The goal:

Design an app that will provide customized and valuable web development courses to all learners of all skill levels.

Google

Project overview

My role:

UX Designer leading the app and responsive website from conception to 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.

Google

Understanding the user

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

Google

User research: summary

I conducted surveys and interviews to know my target users. Most participants reported feeling badly about the already available tools for learning web development that didn't offer flexibility and has outdated content. The feedback received through research made it very clear that users would be benefited if they had access to an easy-to-use tool to help guide them.

Google

Persona 1: **Sharen**

Problem statement:

Sharen is a busy college student who needs [to learn web development because they want to expand their skills set.

Sharen

Age: 20
Education: B.Sc Arts
Hometown: Virginia
Family: Parents, younger sibling
Occupation: Full time student

"I want to create engaging websites that offer benefits to the society"

Goals
- Develop web development skills and become proficient in HTML, CSS & JavaScript
- Looking for an app that provides structured lessons and challenges to help them learn and practice coding concepts.
- App needs to be flexible to allow them to learn at their own pace

Frustrations
- Busy schedule being a full time student
- Difficult to learn from websites using mobile during her journey back home from college when she is free
- Frustrated with learning platforms that do not offer flexibility in learning

Sharen is a 20 year old college student majoring in graphic design. Although she enjoys graphic design, they want to expand their skillset to include web development in order to be more competitive in the job market. She has some experience with HTML and CSS but is looking to improve the skills and learn more advanced concepts. The learning websites available online are either outdated or has confusing layout and provides courses for a fixed period of time within which she finds it difficult to complete due to her busy schedule.

Google

Persona 2: **Jake**

Problem statement:

Jake is a small business owner who needs to learn web development because they want to take on web development projects of other businesses.

Jake

Age: 40
Education: Bachelor's in Administration
Hometown: Chicago
Family: Wife,children
Occupation: Small business owner

"I want to learn web development so that it can add value to my business"

Goals
- Learn the necessary web development skills to enhance his business' online presence and improve its functionality
- Interested in learning how to build ecommerce sites to expand his business' offerings
- Looking for learning platform that offers practical, hands on experience and the ability to work on real world projects

Frustrations
- Busy schedule managing business
- Concerned about the cost and wants to ensure that he is getting good value for his investment
- Frustrated with learning platforms that do not offer flexibility in learning

John is a 40 year old small business owner who has some basic knowledge of HTML and CSS, but wants to learn more advanced skills like building dynamic websites, databases and ecommerce solutions. He wants to be able to apply his web development skills to his business and potentially take on web development projects for other businesses. He prefers a website to an app because he finds it difficult to learn due to its small size and clumsiness.
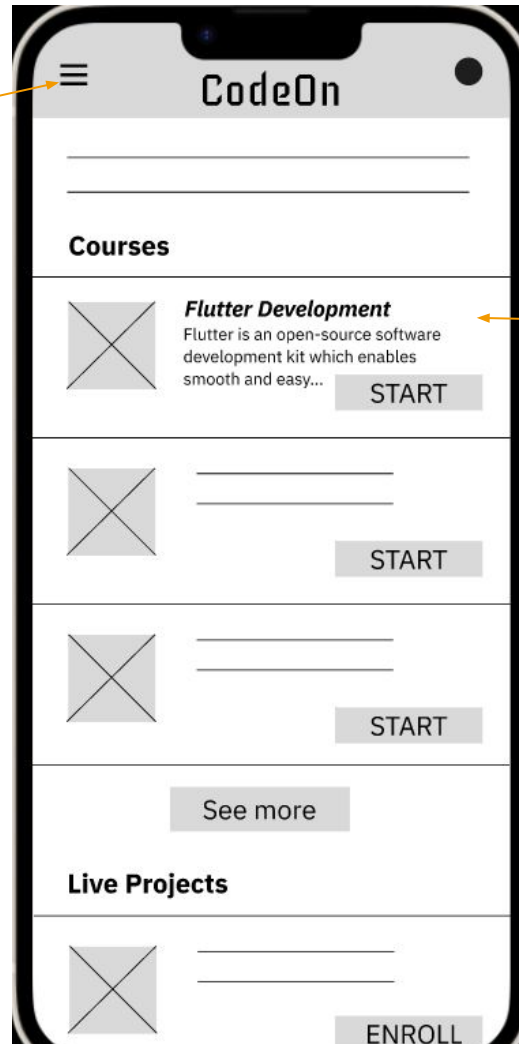
Google

Ideation

I did a quick ideation exercise to come up with ideas for how to address user frustrations and potential issues.

Starting the design

- Digital wireframes
- Low-fidelity prototype
- Usability studies

Google
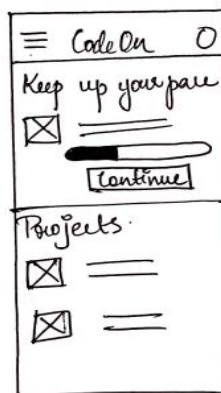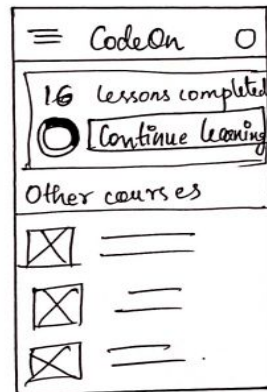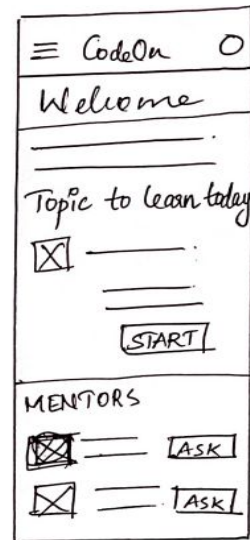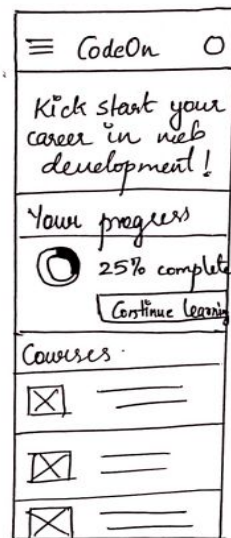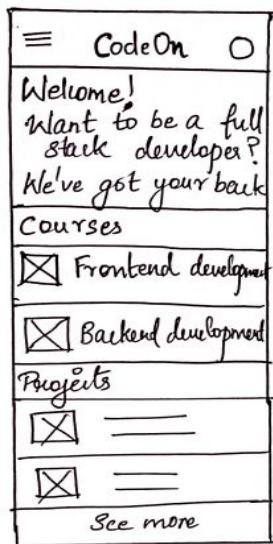
Digital wireframes

After ideating and drafting some paper wireframes, I created the initial designs for the CodeOn app. These designs focused on delivering valuable courses for users to choose from.

Easy access to navigation menu

Easy access to all courses available without any complication

CodeOn

Courses

Flutter Development
Flutter is an open-source software development kit which enables smooth and easy...
START

START

START

See more

Live Projects

ENROLL

Google

Low-fidelity prototype

To prepare for usability testing, I created a low-fidelity prototype that connected the user flow of how learners choose a course and finish it to get the certificate.

View CodeOn low fidelity prototype
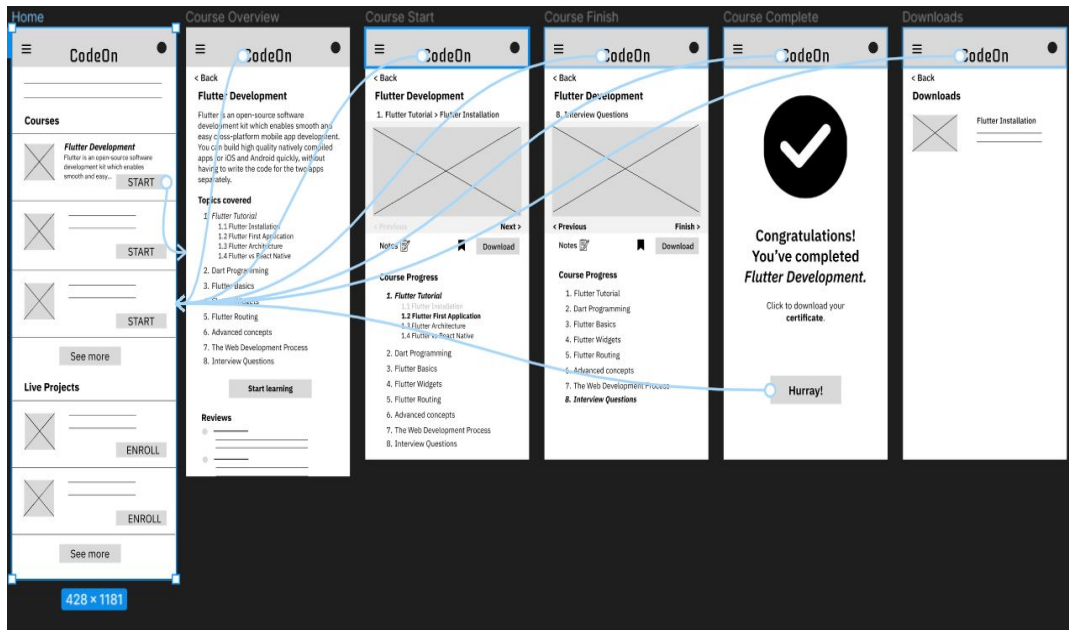
Usability study: parameters

Study type:

Unmoderated usability study

Location:

Australia, remote

Participants:

7 participants

Length:

30-60 minutes

Google

Usability study: findings

These were the main findings uncovered by the usability study:

1

Flexibility

Users would want to be able to learn at their own pace.

2

Overview

Users wanted a quick overview of different courses in the homepage without having to click on all courses.

3

Support

Users wanted the provision of mentors to clarify any questions.

Google

Refining the design

- Mockups
- High-fidelity prototype
- Accessibility

Mockups

Based on the insights from the usability studies, I applied design changes like providing a 'Your progress' section to let learners feel motivated.

Google

Mockups

Screen 1
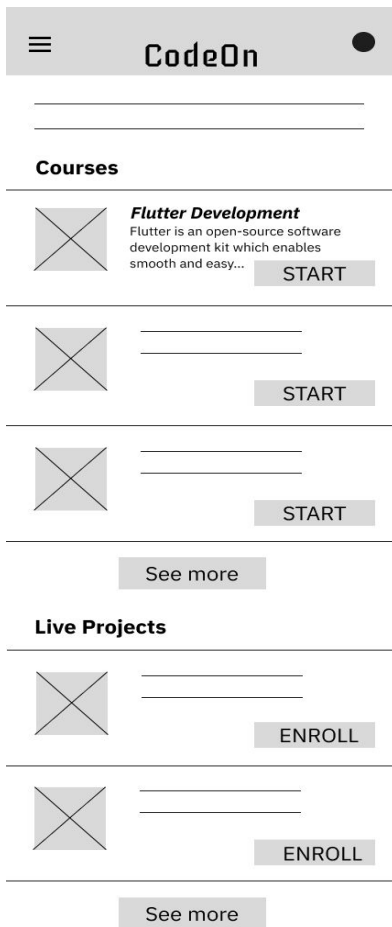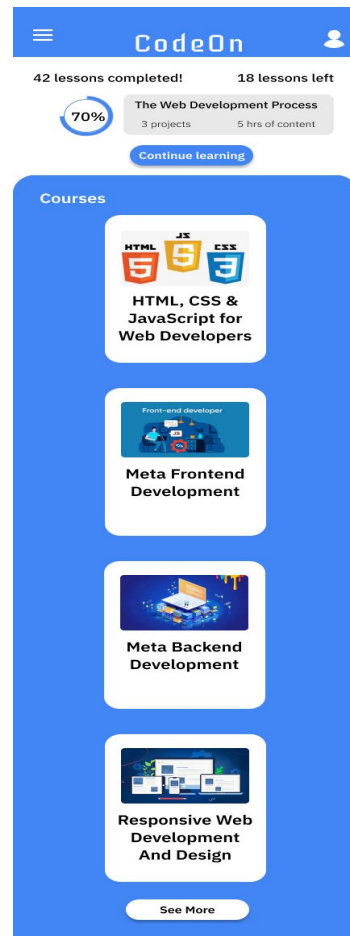
CodeOn

42 lessons completed!   18 lessons left

70% | The Web Development Process
3 projects   5 hrs of content

Continue learning

Courses

HTML, CSS & JavaScript for Web Developers

Meta Frontend Development

Meta Backend Development

Responsive Web Development And Design

See More

Screen 2

CodeOn

< Back

Meta Frontend Development

Launch your career as a front-end developer. Build job-ready skills for an in-demand career and earn a credential from Meta. No degree or prior experience required to get started.

Topics covered

1. Introduction to Frontend Development
2. Programming with JavaScript
3. Version Control
4. HTML and CSS in depth
5. React Basics
6. Advanced React
7. Principles of UX/UI Design
8. Frontend Developer Capstone
9. Coding Interview Preparation

Start learning

Reviews

Helna Sarah
One of the best courses to learn frontend development.

Levin Hardy
To be able to take courses at my own pace has been an amazing experience.

Screen 3

CodeOn

< Back

Meta Frontend Development

1. Introduction to Frontend Development

< Previous   Next >

Notes 📝   **Download**

Course Progress

1. *Introduction to Frontend Development*
2. Programming with JavaScript
3. Version Control
4. HTML and CSS in depth
5. React Basics
6. Advanced React
7. Principles of UX/UI Design
8. Frontend Developer Capstone
9. Coding Interview Preparation

Screen 4

CodeOn

✓

Congratulations! You've completed *Meta Frontend Development*.

Download your **certificate**.

Projects you can do

1. Music player using JavaScript
2. Responsive Blog Website
3. Build a Weather App
4. Build your own portfolio site
5. Build a clone website
6. Build a JavaScript Quiz App

Okay

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 CodeOn high-fidelity prototype

Google
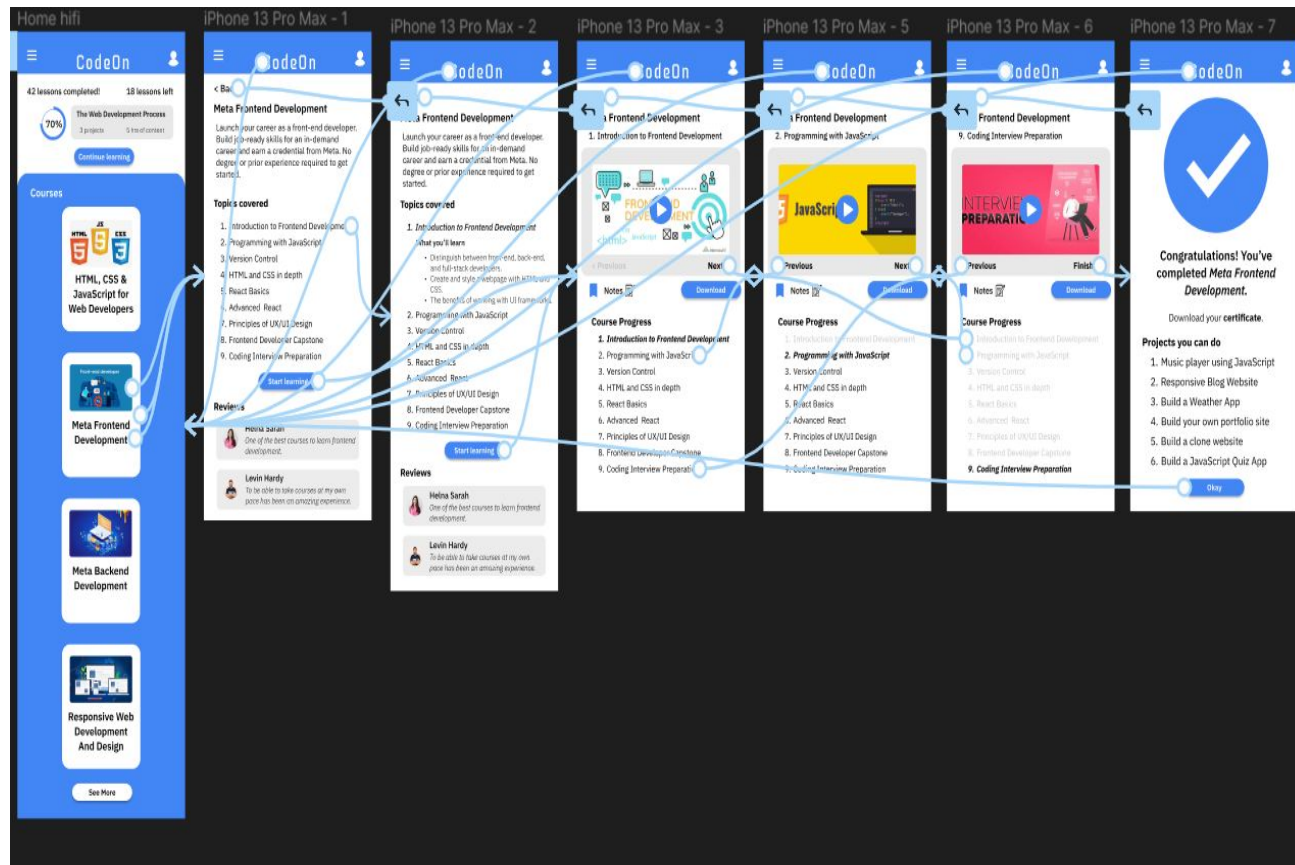
Accessibility considerations

1

Clear labels for interactive elements that can be read by screen readers.

2

Initial focus of the home screen on available courses help define the primary task or action for the user.

Google

Responsive Design

- Information architecture
- Responsive design

Google

Sitemap

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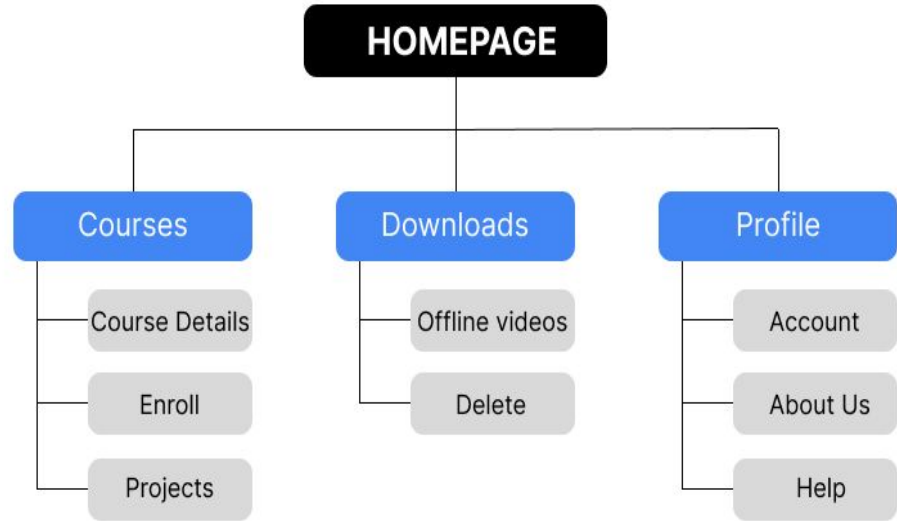
Responsive designs

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.
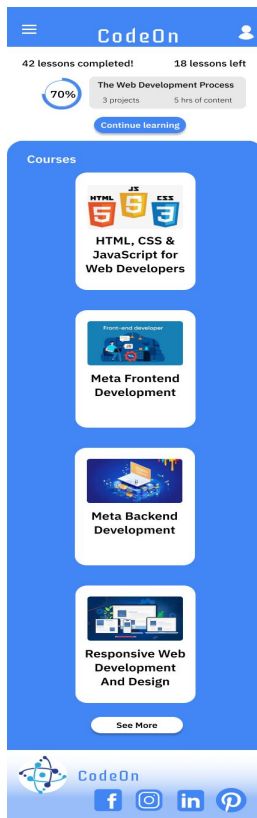
Mobile

Tablet

Desktop

Going forward

- Takeaways
- Next steps

Google

Takeaways

Impact:

Learning web development through an app can be cost effective compared to attending a physical class. CodeOn allow you to learn at your own pace and at any time, anywhere. Also there is a provision of live projects which help you gain practical experience and can lead to new career opportunities.

What I learned:

I learned that even though the problem I was trying to solve was a big one, diligently going through each step of the design process and aligning with specific user needs helped me come up with solutions that were both feasible and useful.

Next steps

1

Conduct research on how successful the app is in reaching the goal to learn web development.

2

Add more educational resources for users to learn about web development.

3

Provide internships and jobs for learners successfully completing their projects.

Let's connect!

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

Email: anupama777vidya@gmail.com

Google