

Mobile Application Design Document

KickAsh

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25th June 2023

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1. App Overview

1.1 Introduction

The development of mobile platforms is advancing at an accelerated pace, introducing a wide range of applications that can be conveniently operated on smartphones. This enables individuals to perform various tasks and engage with diverse mobile applications without leaving the comfort of their homes. Moreover, mobile technology has proven instrumental in addressing numerous health concerns and promoting a healthier lifestyle.

The primary objective of this project is to serve as a counselor and guide for individuals who aspire to quit smoking. Rather than employing the abrupt "cold-turkey" method, where smoking is immediately ceased after years of continuous use, this project adopts a scientifically proven approach that emphasizes gradual control. Through the implementation of a system-notification system, the mobile app assumes the role of a compassionate yet firm guardian, consistently motivating users to quit smoking and prioritize their health.

The app closely follows the different techniques and ideas from the best selling book "Allen Carr's Easy Way To Stop Smoking". It also incorporates a 30-day timetable system that provides practical and straightforward steps to help users distract themselves from smoking throughout the day. By gathering information from users regarding their smoking history, such as the number of years they have been smoking, the app utilizes pattern recognition algorithms to recommend a personalized timetable for smoking during the initial days. The recommended number of cigarettes to smoke per day gradually decreases, taking into account factors such as gender, age, and duration of smoking.

In summary, this project leverages the rapid advancement of mobile platforms to offer a supportive and personalized quitting strategy for smokers. By employing a gradual and data-driven approach, the app aims to empower users to successfully overcome their smoking habit and prioritize their well-being.

1.2 Problem Domain:

Cigarette smoking stands as the primary cause of preventable death worldwide, with more than 480,000 deaths occurring annually in the United States alone, accounting for nearly one in five deaths [1]. A significant portion of adult smokers, approximately 68.0% (22.7 million), expressed a desire to quit smoking in 2015, while over half of them attempted to quit within the past year [1]. In 2018, approximately 7.5% of adult smokers (2.9 million) successfully achieved smoking cessation [3].

When attempting to quit smoking, 31.2% of adult smokers (7.6 million) sought assistance through counseling or medication in 2015 [3]. Supported by the aforementioned research and facts, it is evident that counseling effectively aids individuals in their quest to quit smoking. In fact, counseling nearly doubles a smoker's chances of successfully quitting and maintaining abstinence for at least one year. The approximate cost associated with each case of sustained smoking cessation due to counseling availability is \$1300 [4]. This expense is considerably high, highlighting the focus of this project: to provide the most affordable option for those seeking to overcome smoking addiction.

The primary objective of this project is to address this issue by making the most economical solution accessible to individuals aiming to quit smoking.

Smokers who want to quit face numerous challenges, including addiction, cravings, a lack of motivation, and limited access to personalized support and resources. They often struggle to find effective strategies that work for them.

This app addresses these challenges by providing personalized support tailored to each user's needs. The app's tracking tools, motivational support, community features, and educational resources combine to offer a comprehensive solution that enhances the chances of successful smoking cessation.

1.3 Target Audience

The target audience of "KickAsh" includes adult smokers who have expressed a desire to quit smoking and are actively seeking assistance in their quitting journey.

1.4 Supported Platforms

We will be supporting the Android platform for the moment.

2. App Functionalities

2.1 MAIN FUNCTIONALITIES

The main features of the app are as follows:

- **Smoking Habit Tracker:** The app features an intuitive and easy-to-use smoking habit tracker that allows users to log their smoking habits accurately. Users can record the number of cigarettes smoked, triggers that lead to smoking, cravings experienced, and the times of day when they typically smoke. The tracker may also include additional data points like locations, mood, and associated activities.
- **Health Progress Tracking:** Users can track their health improvements through the app. It provides visual representations of their progress, such as charts or graphs, to show the positive impact of quitting smoking on their health. The app may calculate and display metrics like saved money, reduced carbon monoxide levels, improved lung capacity, decreased heart rate, and lowered risk of smoking-related diseases.
- **Motivational Support:** The app will provide personalized messages, reminders, and virtual rewards to motivate users throughout their quitting journey. These motivational elements are tailored to each user's progress, milestones, and personal preferences. Messages may include encouraging quotes, tips for managing cravings, or reminders of the health benefits of quitting.
- **Community and Social Features:** The app will foster a supportive community where users can connect with others who are on a similar quitting journey. It may include features like discussion forums, chat groups, or social feeds where users can share their experiences, provide support, and exchange tips and advice. The app may also organize challenges or group activities to encourage healthy competition, camaraderie, and shared goals.

- **Educational Resources:** "KickAsh" will offer a rich library of educational resources to help users understand the harmful effects of smoking, learn coping strategies for cravings, and gain knowledge about the benefits of quitting. These resources may include articles, videos, interactive quizzes, expert advice, and success stories to inspire and inform users.

2.2 ADDITIONAL FUNCTIONALITIES

These are the future functionalities that may be developed at a later time.

- **Gamification:** The app may include gamified elements to make the quitting process engaging and rewarding. Users could earn badges or level up based on their progress, participate in virtual challenges, and unlock achievements for reaching milestones or adopting healthy habits. Gamification adds an element of fun and motivation to the quitting journey.
- **Personalized Recommendations:** Using data analytics and machine learning algorithms, the app can provide personalized recommendations for quitting strategies, coping mechanisms, and resources based on individual preferences and patterns. These recommendations take into account factors like smoking history, triggers, past successes, and user feedback.
- **Integration with Wearable Devices:** "KickAsh" can integrate with compatible wearable devices, such as fitness trackers or smartwatches. This integration allows users to sync their app data with these devices, providing additional health-related insights like heart rate variability, physical activity, sleep patterns, and stress levels. This comprehensive health tracking enhances the user's understanding of the positive changes occurring during their quit journey.

- **Professional Support:** The app may provide options for users to seek professional help through teleconsultations or messaging features. Users can connect with smoking cessation counselors, therapists, or access a helpline for immediate assistance. Integrating expert support within the app ensures that users have access to professional guidance during challenging times.

2.3 Data Flow

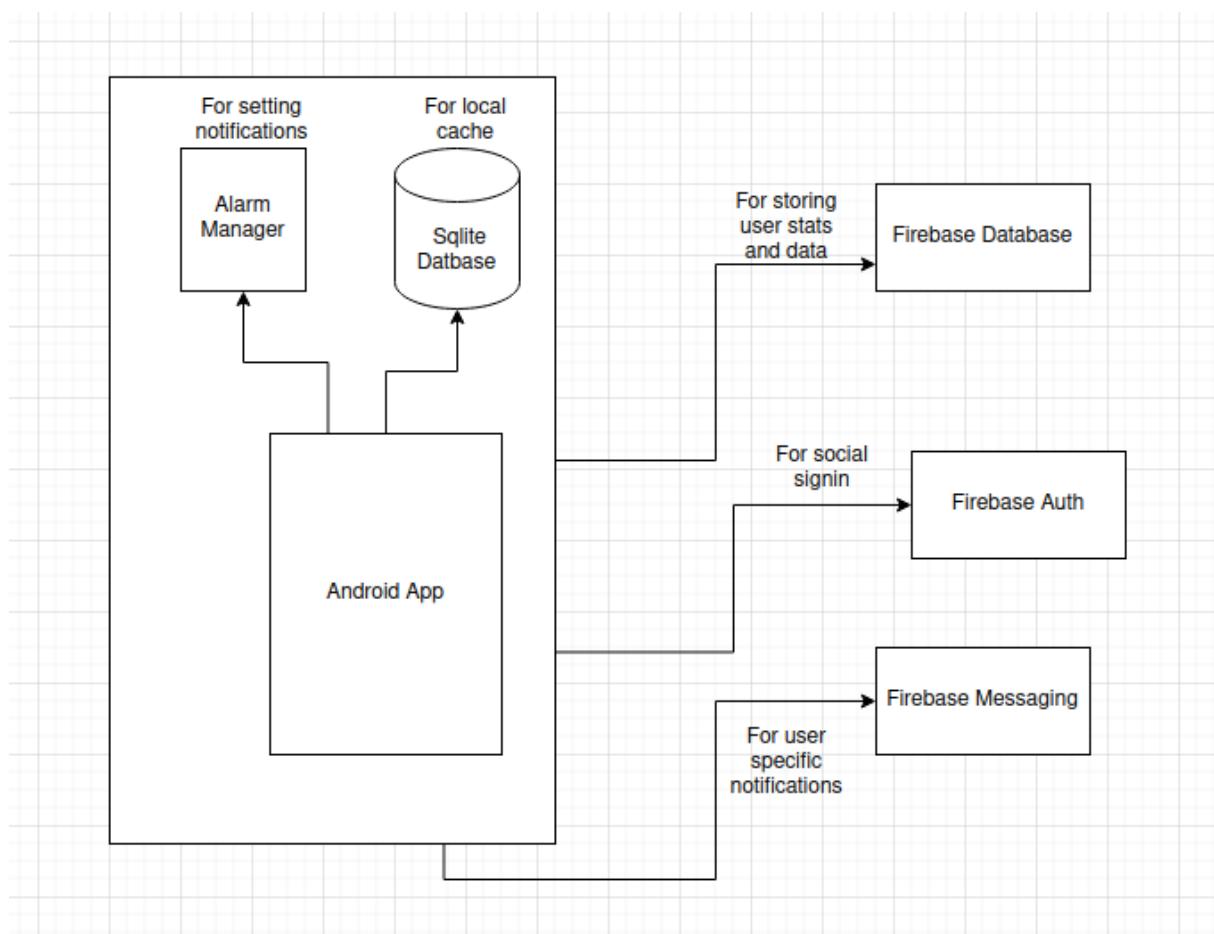


Fig 2: Low Level overview on how app works

2.4 Frameworks

We are planning to utilize Firebase for notifications and for storing persistent user data. For the web version of the app, we will be using React to develop the portfolio website.

3. Aesthetics

A balance between aesthetics and functionality is important for mobile app design. We are still experimenting with the placement of our critical functionality throughout the app. For the early prototype of the project, we will prioritize functionality over design, with the design iterations growing over time.

2.1 Primary Color Palettes

Primary	On Primary	Primary Container	On Primary Container
Secondary	On Secondary	Secondary Container	On Secondary Container
Tertiary	On Tertiary	Tertiary Container	On Tertiary Container
Error	On Error	Error Container	On Error Container
Background	On Background	Surface	On Surface
Outline		Surface-Variant	On Surface-Variant

2.2 Fonts

We will be using the variant of free google fonts "Poppins"

Thin 100

Quit Smoking

Thin 100 Italic

Quit Smoking

ExtraLight 200

Quit Smoking

ExtraLight 200 Italic

Quit Smoking

Light 300

Quit Smoking

Light 300 Italic

Quit Smoking

Regular 400

Quit Smoking

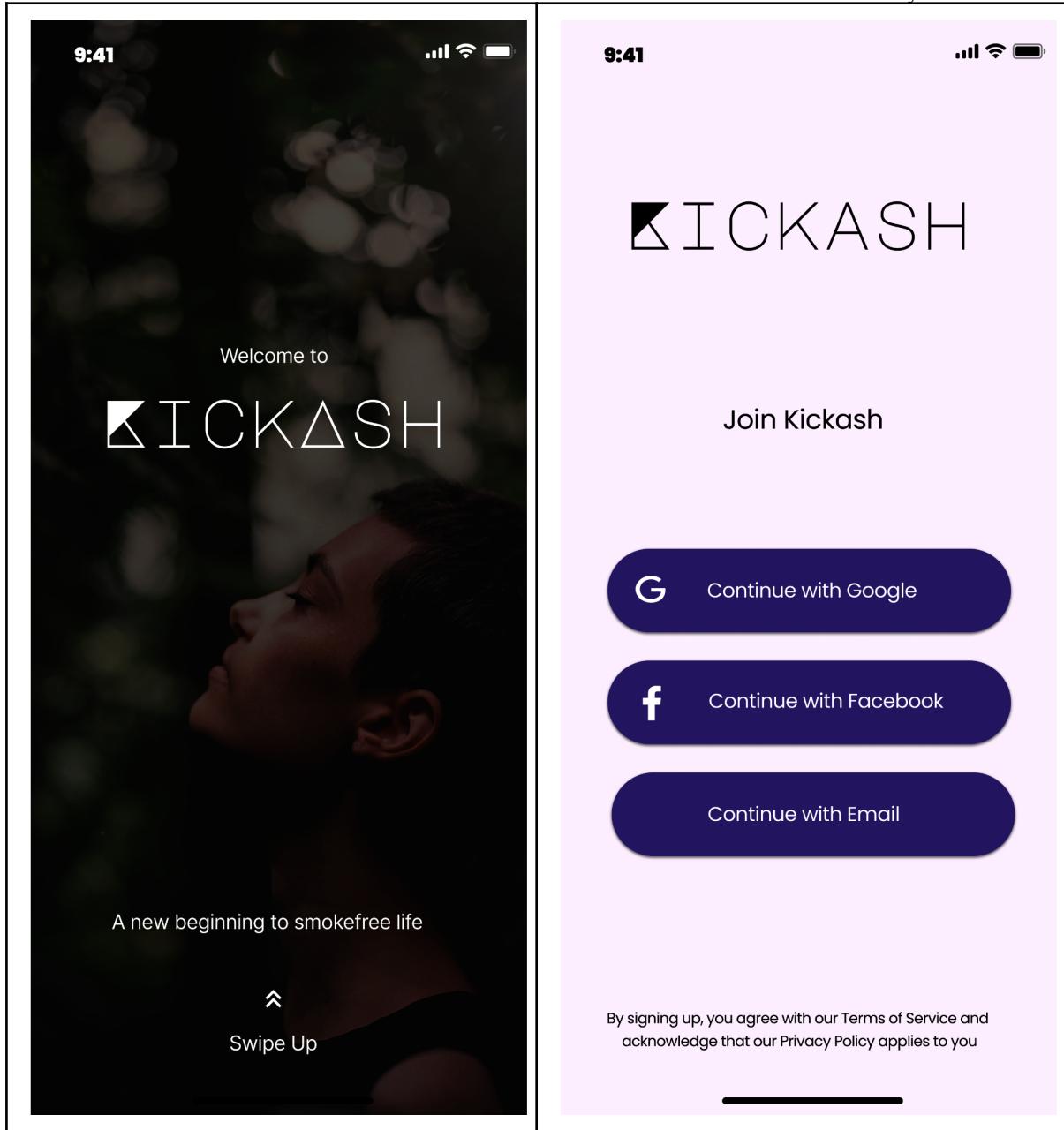
3. Design & Wireframes

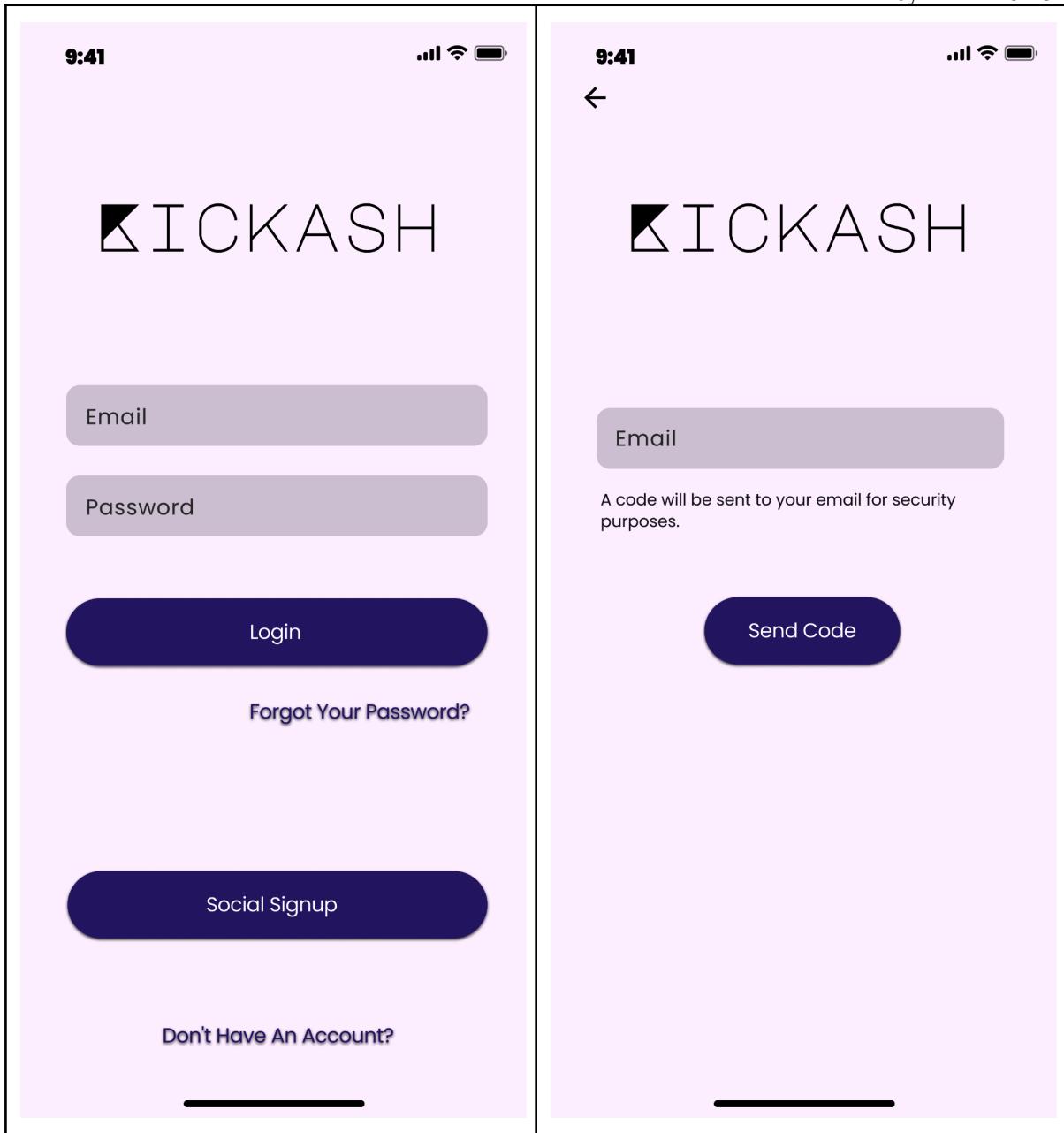
3.1 UI/UX Prototype

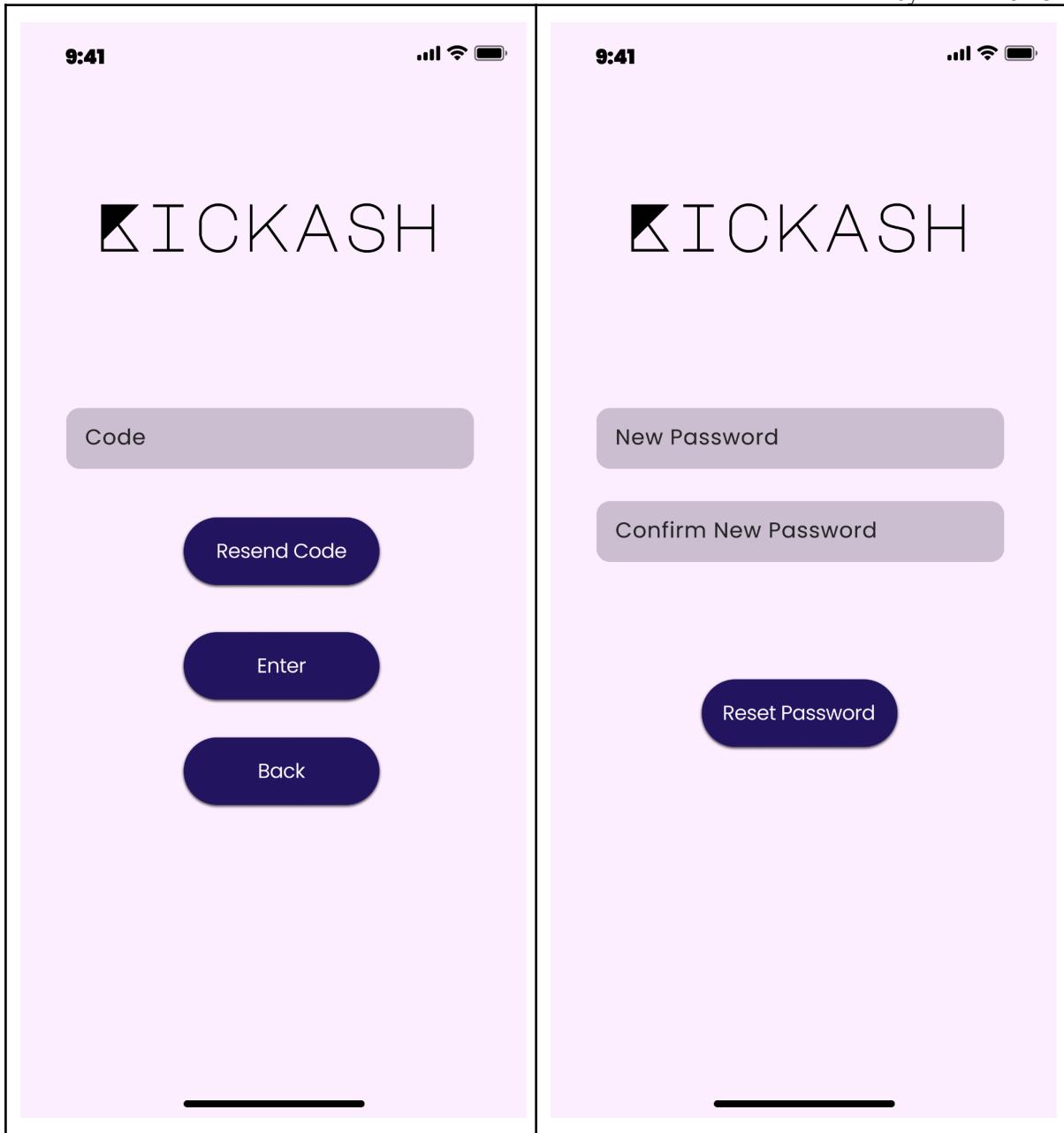
<https://www.figma.com/file/1xAfiH89RaZ1I9hNO9L9yN/KickAsh?type=design&node-id=18-129&t=fp2xmBkC6vqAdLUc-0>

The UI screens that we have developed in this release are

- Registration/Login Screen
- Onboarding Screen
- Social feature Screen
- Motivational support Screen
- User Profile
- Progress Tracking Screen
- Educational Resources (Articles)







9:41



KICKASH

Your password has been
successfully reset.

Back to Login



Kudos to you!

*on taking the big
step towards a
healthier living*

Please help us understand you better
by answering a few questions

Let's go!

9:41



When did you start
smoking?

It's been more than 5 years

It's been a year or two

Less than an year

Next

9:41



How many cigarettes
do you consume daily

Less than 10

Less than 20

20 or more

Next

9:41



What's your gender ?

Male

Female

Other

Next

9:41



How do you feel after
smoking?

Stress free

Guilty

Happy

Next

<p>9:41</p> <p>←</p> <p>What triggers you to smoke?</p> <p>Stress</p> <p>Anxiety</p> <p>Craving</p> <p>Next</p>	<p>9:41</p> <p>←</p> <p>How stressful can your day be? (in percentage)</p> <p>25</p> <p>Next</p>
---	--

9:41



How stressful can your day
be? (in percentage)



Next

9:41



What prompted your
decision to quit smoking?

- Health concerns
- Family and loved ones
- Financial savings
- Social Acceptance
- Improve physical fitness

Next

9:41

What are your hobbies?
(You can select more than one)

Photography

Painting or drawing

Playing a musical instrument

Cooking or baking

Crafting

Hiking or nature walks

Playing sports

Dancing

Playing video games

Next

9:41

←



WOHOOO!!!

We know you better now!
Thank you for your time

You are all set to start your smoke free journey with

KishAsh

[Click Here](#)

9:41

Good Morning Subash

Money Saved
\$43.70

Annual Saving
\$1,825.00

That's exactly
200 cigarette not smoked
10 packs not bought

That's exactly
85 cigarette avoided
10h of life won back

Had a relapse ?

I smoked Today

9:41

← Community

Mark
Hi, Todays my first week without smoking :)
3m

Hi, Mark thank you for being here, also first time here
3m

Lady Gaga
Since November 13, 2020 at 8:30
342 days smoke free
6840 cigarettes down,
\$3,420 and 28 days saved
3m

Rosy Love
Good job! Keep it up! i've been here for quite a long time and I also started with you guys for a while now, just keep me updated alright. Just do it man.
3m

Send Reply >

9:41

←



YOUR BALANCE

3150 points

Redeem coupons

25% off on H&M

H&M

COUPON UNLOCKED **Redeem for 1500**

40% off on Tim Hortons

Tim Hortons

COUPON UNLOCKED **Redeem for 2999**

10% off on Credit Card Bills

Credit Card Bills

COUPON UNLOCKED **Redeem for 9999**

5% off on APPLE PRODUCTS

APPLE PRODUCTS

COUPON UNLOCKED **Redeem for 15999**

Home **Reward** **Social** **Info**

9:41

←

Progress



0.5%

Day 1

⌚

4 : 23

Hrs Min

time without smoke

\$

23 \$

Money saved

❤

72 b/min

Heart Rate

🚫

23

cigarettes smoked

Home **Reward** **Social** **Info**

History

From Date: 06/1/2023

To Date: 06/11/2023

Cigarettes Smoked

Search **Graph**

11-jun-23	2Fags
10-jun-23	5Fags
9-jun-23	4Fags

Home **Reward** **Social** **Info**

Articles

The Health Benefits of Quitting Smoking: Reclaiming a Smoke-Free Life
By Admin
Posted: 2 days ago

From Smoke to Fresh Air: How Quitting Smoking Transforms Your Lung Health
By Admin
Posted: 2 days ago

Smoke-Free Homes: Creating a Healthy Environment for Your Family
By Admin
Posted: 2 days ago

The Financial Benefits of Quitting Smoking: Saving Money While Saving Your Health
By Admin
Posted: 2 days ago

Breaking Free: Overcoming Withdrawal Symptoms When Quitting Smoking
By Admin
Posted: 2 days ago

Home **Reward** **Social** **Info**

9:41

The Health Benefits of Quitting Smoking: Reclaiming a Smoke-Free Life



By Admin

2 Min Read

Posted: 2 days ago

Quitting smoking is one of the best decisions you can make for your health. The health benefits of quitting smoking are numerous and can have a significant impact on your overall well-being. Here are some of the key benefits:

1. Reduced risk of diseases: Smoking is a leading cause of various diseases, including lung cancer, heart disease, stroke, and respiratory conditions like chronic bronchitis and emphysema. By quitting smoking, you significantly reduce your risk of developing these serious illnesses.
2. Improved cardiovascular health: Smoking damages your cardiovascular system by narrowing the blood vessels, increasing blood pressure, and raising the risk of blood clots. When you quit smoking, your heart and blood vessels begin to heal, reducing the risk of heart attacks, strokes, and other cardiovascular problems.
3. Enhanced lung function: Smoking harms your

9:41

Profile



Member Since
2020 - 02 - 03

User Name
@ginac

Display Name
Gina Harolds

Gender
Female

Date of Birth
1998 - 02 - 03

Smoker Profile

Smoker Age
21

Numbers of cigarettes per day

Estimated cost per pack

9:41

9:41

Yes to life

Join a community motivating thousands of people towards their efforts to quit smoking.

Join Now!!

Srk
150+ days

Salman
60 days

Bob
10 days

Ajaya
150+ days

Let's Motivate

Keep up the streak and motivate others to quit smoking.

Share Story

Home Reward Social Info

Home Reward Social Info

9:41



Share Your Stories Here.

Share story about the day you found your reason to quit smoking.



my son made me

.....



I dealt with my cigarette cravings by playing my favourite sport



Home



Reward



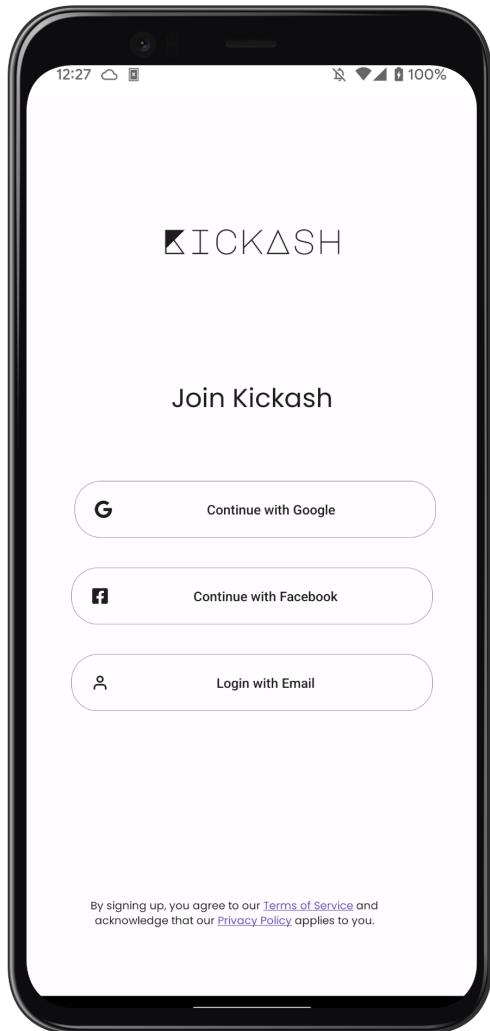
Social



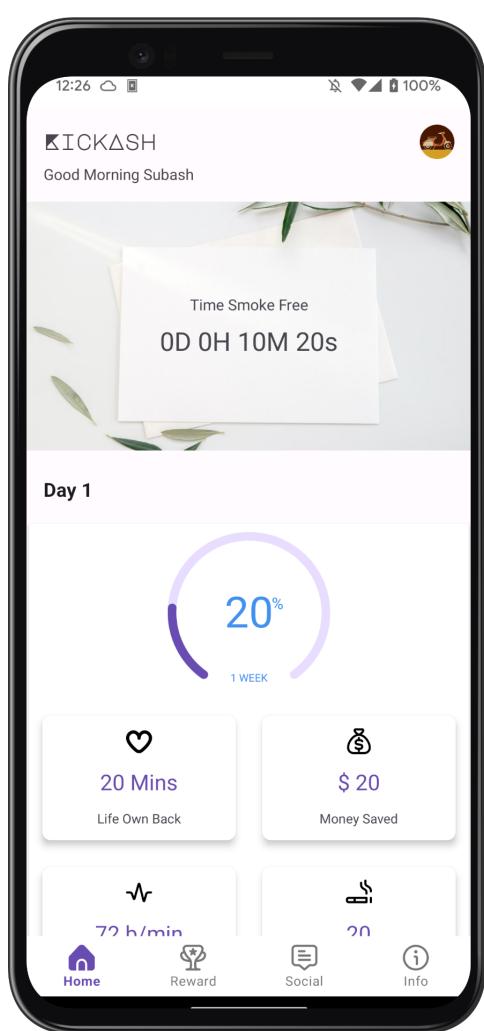
Info

4. Application Screenshots

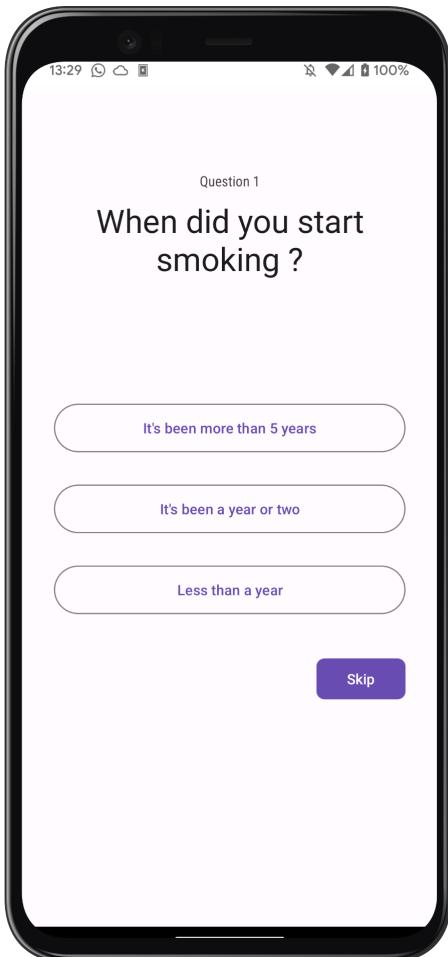
4.1. Login



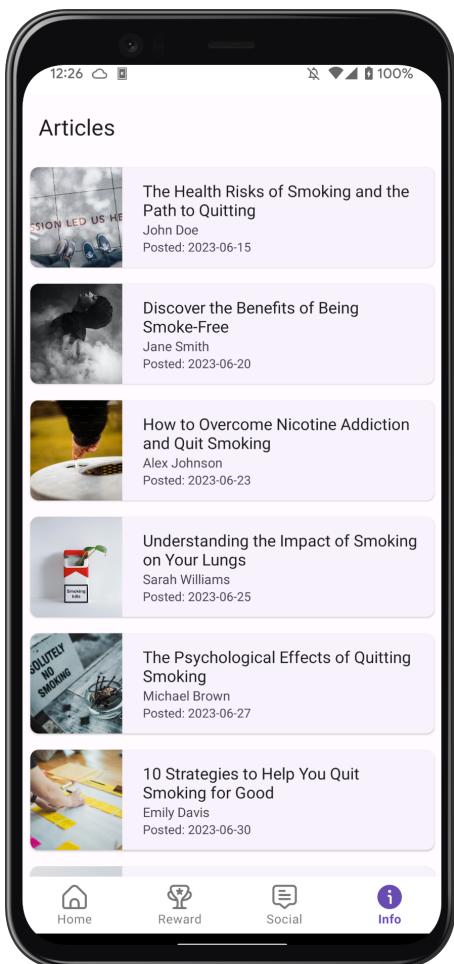
4.2. Dashboard



4.3. Questionnaire



4.4. Articles



5. Portfolio Site Wireframe

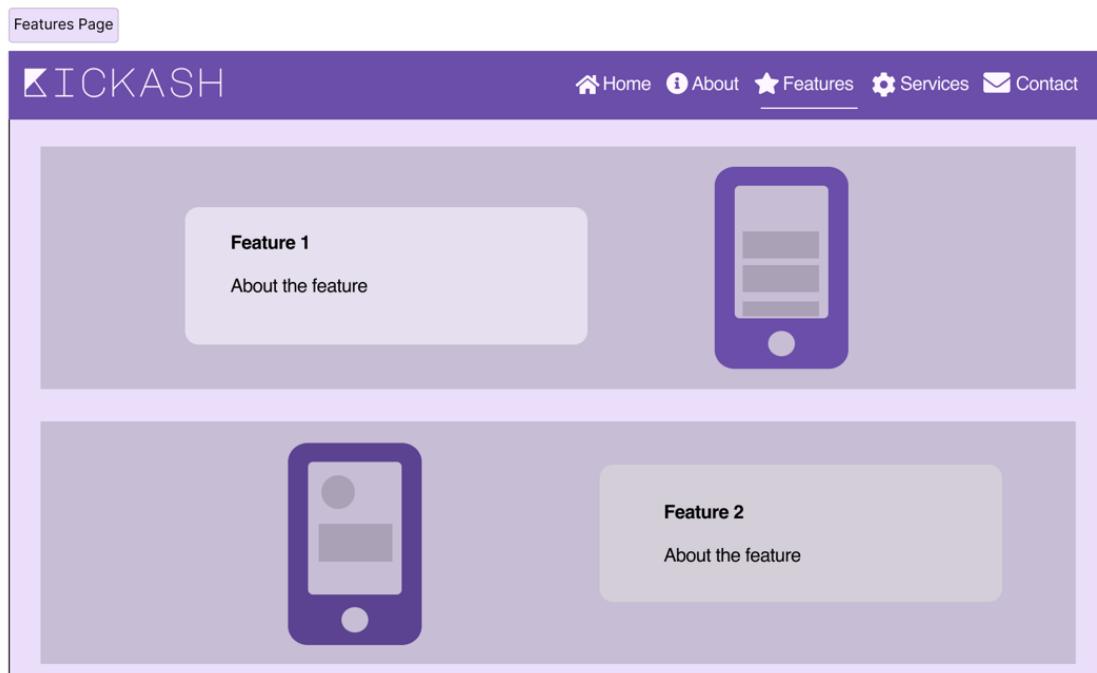
5.1. Home Page

The wireframe shows the layout of the Kickash Home Page. At the top, there's a purple header bar with a 'Home Page' button. Below it is a dark purple main header with the 'KICKASH' logo. The main content area has a light purple background. It features a central message: 'Embrace a Smoke-Free Life: Your Path to Freedom Starts Here!' followed by a link 'Click here to go a step towards your Goal'. There's also a 'GET IT ON Google Play' button. To the right, there's a small screenshot of a mobile app interface titled 'Progress'. The bottom section has a dark grey footer with links for 'Site Map', 'Follow Us' (with icons for Facebook, Twitter, Instagram, and LinkedIn), and 'Contact Us' (with email and phone number). A copyright notice at the bottom reads '© 2023 Kickash. All rights reserved.'

5.2. About Page

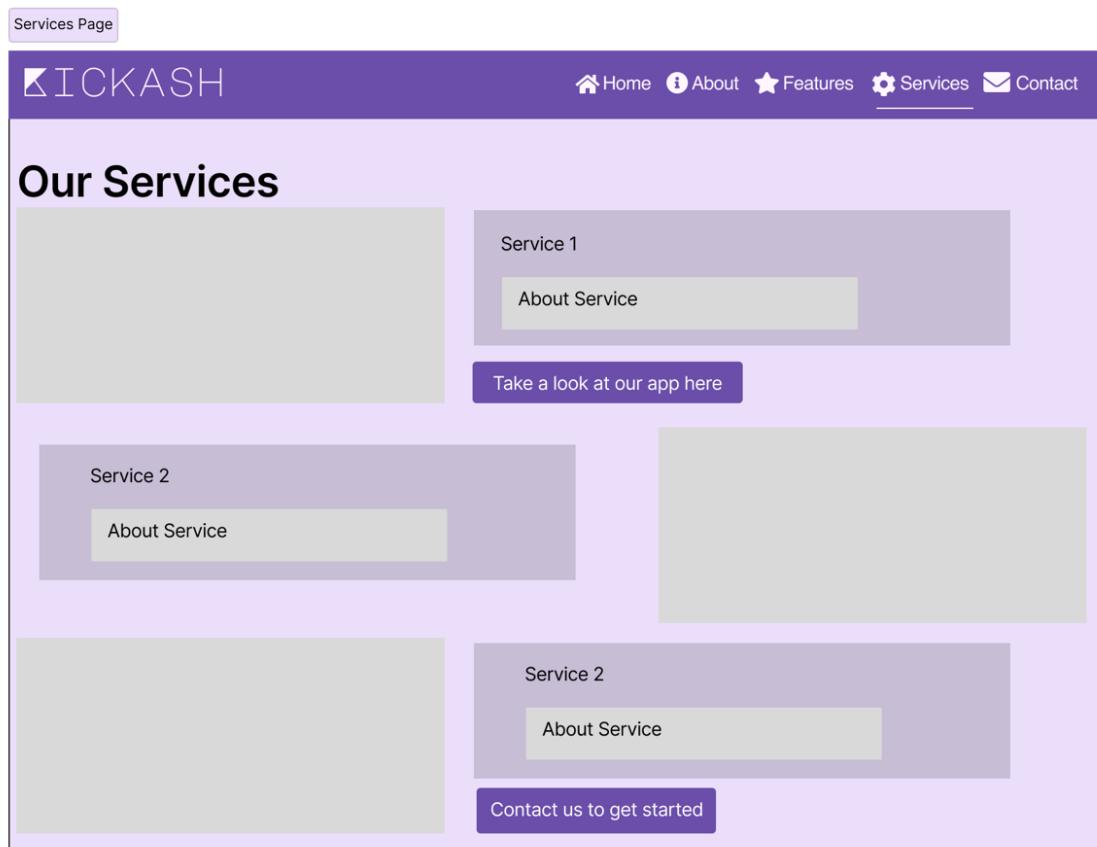
The wireframe shows the layout of the Kickash About Page. At the top, there's a purple header bar with an 'About Page' button. Below it is a dark purple main header with the 'KICKASH' logo. The main content area has a light purple background. It features a title 'About Us' and 'Team Byte Force'. Below this, there are six placeholder boxes for team members, each containing a 'picture' placeholder and the text 'Team member'. At the bottom, there's a dark grey footer with links for 'Site Map', 'Follow Us', and 'Contact Us'.

5.3. Features Page



The screenshot shows the 'Features Page' of the KICKASH website. The header features a purple navigation bar with the 'KICKASH' logo on the left and links for Home, About, Features (which is underlined), Services, and Contact on the right. A 'Features Page' button is highlighted in a light purple box at the top left. The main content area has a light gray background. It displays two features: 'Feature 1' on the top left and 'Feature 2' on the bottom right. Each feature is represented by a purple smartphone icon. Below each icon is a white rectangular box containing the feature name ('Feature 1' or 'Feature 2') and a link labeled 'About the feature'.

5.4. Services Page



The screenshot shows the 'Services Page' of the KICKASH website. The header is identical to the Features page, featuring a purple navigation bar with the 'KICKASH' logo and links for Home, About, Features, Services (underlined), and Contact. A 'Services Page' button is highlighted in a light purple box at the top left. The main content area has a light gray background. It features a large heading 'Our Services' in bold black text. Below this, there are four service blocks arranged in a grid-like pattern. The first column contains 'Service 1' (with 'About Service' link) and 'Service 2' (with 'About Service' link). The second column contains another 'Service 2' (with 'About Service' link) and a call-to-action button labeled 'Contact us to get started'. Each service block is represented by a green rectangular box.

5.5. Contact Page

The screenshot shows the 'Contact Us' page of the KICKASH website. At the top left, there's a 'Contact Page' button. The header features the KICKASH logo on the left and navigation links for Home, About, Features, Services, and Contact on the right. The main section has a purple background. It starts with the heading 'Contact Us' in large bold letters. Below it, a sub-headline says 'Find us in one of the following social media platforms:' followed by icons for Facebook, Twitter, Instagram, and LinkedIn. A question 'Got a question for us? Leave us your contact information and inquiry here:' is followed by a note '* = required'. There are four input fields: 'Email *' (purple), 'Name' (light blue), 'Inquiry *' (purple), and a large text area for the inquiry. A purple 'Submit' button is at the bottom.

6. Portfolio Site Screenshots

6.1. Home Page

Embrace a Smoke-Free Life:
Your Path to Freedom Starts
Here!

Click here to take a step towards your goal.

GET IT ON
Google Play

6.2. About Page

Subash Aryal Lead Software Engineer(LSE)	Kosiso Chukwu Abone Lead App Designer	Jason Chan Web Designer
Ilham Sheikh Project Manager	Suraj Subedi Technical Artist	Rahul Gupta Generalist Programmer

6.3. Features Page

6.4. Services Page

6.5. Contact Page

KICKASH

Home About Features Services Contact

Contact Us

Find us on one of the following social media platforms:

Got a question for us? Leave us your contact information and inquiry here:

* = required

Email *

Name

Inquiry *

7. Assets Index

Name	Type	Source
Font Awesome Icon Packs	icons	https://fontawesome.com/v4/icons/
N/A	sound	
Illustrations	SMG files	https://undraw.co/illustrations
Confetti Image	Image	Flaticon
Material Icon Packs	Icons	Packs

8. Version History & Changelog

8.1 Version 1

- Initial Draft for the project

8.2 Version 2

- Create UI based on the proposed wireframe
- Fixed wireframe in some edge case
- Started android project with wireframes

8.3 ChangeLog

- Initial UI for the projects

8.4 Version Control

All the code and resources used throughout this project will be shared on Github, and team members are notified to create a new branch for every new feature they will be working on. You can find the project at:
<https://github.com/subasharyalgeorgian/ByteForce>

9. References

1. S. Department of Health and Human Services. [Smoking Cessation. A Report of the Surgeon General](#). Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2020 [accessed 2023 June 3].
2. Babb S, Malarcher A, Schauer G, Asman K, Jamal A. [Quitting Smoking Among Adults—United States, 2000–2015](#). Morbidity and Mortality Weekly Report 2017 [accessed 2023 June 3].
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