SNAPCHAT

SRS DOCUMENT

INDEX

1. INTRODUCTION TO SNAPCHAT

PURPOSE

This document describes the software requirements and specifications of Snapchat. Snapchat is an online application that allows us to add as many friends around the globe. This app enables the user to communicate with his/her friends and build streaks. This app can be installed from the Google play store or the Apple play store.

DOCUMENT CONVENTIONS

Text formats:

Font   : - Times New Roman (Body), Constantia (Headings) Font size: - 13 for Body, 14 for Sub-Headings and 22 for Headings. Document conventions:

MNEMONICS	MEANING
DB	Database
DDB	Distributed Database
DFD	Data Flow Diagram
ER	Entity Relationship
SS	Screenshot

DEFINITIONS

User Account

A user account is a location on a network server used to store a computer username, password, and other information. A user account allows or does not allow a user to connect to a network, another computer, or other share. Any network that has multiple users requires user accounts.

Mobile Operating System

A mobile operating system, also called a mobile OS, is an operating system that is specifically designed to run on mobile devices such as mobile phones, smartphones, PDAs, tablet computers and other handheld devices.

Database

A database is a collection of information that is organized so that it can easily be accessed, managed, and updated. In one view, database can be classified according to types of content.

Distributed Database

A distributed database is a database in which storage devices are not all attached to a common processing unit such as the CPU, and which is controlled by a distributed database management system together sometimes called a distributed database system network.

Entity Relationship

An entity relationship model, also called an entity-relationship (ER) diagram, is a graphical representation of entities and their relationships to each other, typically used in computing in regard to the organization of data within databases or information systems.

DFD

A data flow diagram (DFD) is a graphical representation of the "flow" of data through an information system, modelling its process aspects. A DFD is often used as a preliminary step to create an overview of the system, which can later be elaborated.

Use Case Diagram

In software and systems engineering, a use case is a list of actions or event steps, typically defining the interactions between a role (known in the Unified Modeling Language as an actor) and a system, to achieve a goal. The actor can be a human or other external system.

PROJECT SCOPE

"*Experience the world in new ways, every day*"

Snapchat is an online instant messaging application that enables the user to send friend requests to other users – from his own phonebook using Snapchat (or) by searching profiles nearby (or) by searching someone's username (or) from quick add (or) by inviting a contact to Snapchat – such that the app establishes a communication portal to the users on both ends. Users can send text messages, snap messages, video messages and audio messages, make audio & video calls or even share media and location with their friends. Users can

also subscribe to pages of their interest.

Tap on your face to try on a new look, swap faces with a friend, or even play a game! After you take a photo, just swipe to add artwork based on where you are, what's going on near you, and more. This app needs internet to access some of its services (For example: Snaps can be taken offline but can't be posted/shared unless an internet connection is active). Snapchat is totally a free application that aims at integrating the world with more realistic communication.

The approximate time invested on building Snapchat was estimated to be roughly 500 hours+ with basic features and approximately 1400+ hours with complex features. It costs about $10K for the iOS platform and $9K for Android just to code one feature: Automatic self-destructive messages. $1.4 Revenue per user: Consider the fact that there are 300M+ active Snapchat users per month. 2015 Snapchat's annual revenue was estimated to be $100M and the recent reports say that 2019's revenue may touch a $500M easily.

REFERENCES

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https://blog.hubspot.com/marketing/snapchat-hidden-features https://beebom.com/recover-snapchat-account/
http://www.passwordpit.com/snapchat-password-requirements/ https://www.wikihow.com/
https://www.techjunkie.com/ https://www.game-debate.com/games/

2.

HISTORY

OVERALL DESCRIPTION

Snapchat is a multimedia messaging app used globally, created by Evan Spiegel, Bobby Murphy, and Reggie Brown, former students at Stanford University, and developed by Snap Inc., originally Snapchat Inc. One of the principal features of Snapchat is that pictures and messages are usually only available for a short time before they become inaccessible to their recipients. The app has evolved from originally focusing on person-to-person photo sharing to presently featuring users' "Stories" of 24 hours of chronological content, along with "Discover", letting brands show ad-supported short-form content. Snapchat has become notable for representing a new, mobile-first direction for social media, and places significant emphasis on users interacting with virtual stickers and augmented reality objects.

As of February 2018, Snapchat has 187 million daily active users.

PRODUCT PERSPECTIVE

Snapchat is one of the world's most popular social media apps despite what seems like a highly counter-intuitive premise. Unlike other social networks, Snapchat was built on the idea that posts should be temporary. Instead of archiving everything people said or did forever (like Facebook, etc.), they decided to act as a daily diary written in disappearing ink. On Snapchat there is no permanent record of your thoughts and actions, unless people cheat by taking screenshots. That disappearing-content feature made the app popular immediately, as people would post pictures that were perhaps indiscreet without having to worry that the pictures would come back to haunt them at a job interview or college admission process.

PRODUCT FEATURES

Automatic self-destructive messages

 Self-destructing messages are a custom feature of Snapchat and one of the things that made it so popular among teenagers. The idea is straightforward, and it is provided in a few steps:

      a. The user sends a friend a message, and it is uploaded to the Snapchat servers.

b.   The recipient gets push notification of the arrival of a new snap. Then the snap is downloaded in a temporary location on the phone.

c.   When the recipient has viewed the message, the time starts to run out. The app deletes the temporary copy of the snap in the phone and alerts the Snapchat server.

d.   The snap is destroyed from Snapchat's servers. If the recipient has not viewed the snap within 30 days, it is deleted automatically.

Texts sent in Chat are deleted, by default. But you can always save something important (or hilarious) with one tap, or a screenshot.

Snap/Camera

Users can create multimedia messages called "snaps." These snaps can comprise photo or a short video; they can be edited with filters and effects, text captions, and drawings. In Chat 2.0 recent update you can send audio notes, make video and audio calls. Snaps can be directed privately to selected contacts, or a semi-public "Story." The privately sent messages can be automatically self-destructed after a few seconds.

Snap Map: Location sharing

Snapchatters around the world add photos and videos to Snap Map every day, so you can

see what's going on across the country, or right down the block, in real time. Just pinch to open the Map! Developers can use Apple MapKit and Google Location SDK to implement this feature. It gives them all tools that are necessary to create custom solutions for different operating systems.

Add friends

It is an essential function for social media app. Besides the standard methods of adding friends via usernames and phone contacts, Snapchat provides some smart ways:
 Snapcodes: Black dots that surround Snapchat Ghostface Chilla logo is a personalized QR code. Another user can scan it by using the Snapchat camera, and he begins instantly follow you. Here are used recognition algorithm and an algorithm for the generation of such codes
 Add Nearby: It uses your location to scan what other users in your proximity also have Add Nearby open. The app sends the device's coordinates to the server, the server in its turn compares the geolocations of devices with opened Add Nearby screen.

Video and audio calls

In the updated version of chat, the app users can start talking or video chatting instantly with one tap. If the recipient isn't online, you can send an audio note. The app uses technology from AddLive — a real-time communications provider - to provide video chat feature. It usually takes two months to develop perform this option.

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Lenses or Filters

 The "Lens" is one of the most exciting features of Snapchat. It allows users to add real-time effects and alter video images by using face detection technology. This feature became possible when Snapchat acquired the startup Looksery, which does a facial modification and enables users to simulate their appearance for a photo or video chat in real-time on mobile platforms.
Create and purchase your own Filter to frame birthdays, weddings, and any other even product.

It's the perfect way to make any occasion even more special!

Stories and Discover

Stories functionality lets users broadcast photo and video content from their lives to friends; each story lasts 24 hours. Later this feature was expanded to "Live Stories." This enables new functionality when Snapchatters who are at the same event location (such as music festivals or sporting events) can contribute snaps to the same Story. "Discover" option provides a new way to explore Stories from different editorial teams. It contains sponsored short-form content from major publishers, such as BuzzFeed, CNN, Mashable, People, and many others. Every edition is refreshed after 24 hours, because, as the Snapchat team believes, "what's news today is history tomorrow."

Bitmoji

Bitmoji is the digital you — a living cartoon character to instantly express who you are and how you're feeling, in the moment.

Snap-scores

Your Snapchat score is a number that acts as a sort of achievement for how well you use Snapchat. Here's what we've found Snapchat uses to calculate your score:

a. Sending and receiving snaps typically equals a point each, with some snaps occasionally equaling more.

b.　Sending snaps to multiple people at once doesn't equal more points but does add up to your score.

c. Posting a story on Snapchat increases your score by a point.

d. Viewing and sending chats doesn't seem to have any impact on your score.

e. Viewing other people's' stories also has no impact.

Snap-streaks

Streak counts keep track of how many days in a row you've snapped back and forth with a user.

Monetization

Snapchat makes money through in several ways:

f.　**Discover**: Discover feature delivers content from publishers and advertisers. Users can subscribe to media channels of the partners and see promoted content.

g. **Geofilters and lenses**: Snapchat lets brands create their own filters and lenses.

h.　**Advertising API**: Additionally, Snapchat has opened ads API and announced a vast number of promotional instruments, including snap ads between Stories, expandable

"Snap Ads" and ads API itself. All these features let advertisers use programmatic interfaces to run large-scale campaigns instead of making the manually strike deals with Snapchat.

Stickers

Stickers became an inevitable part of modern communication. Snapchat contains 200 stickers built into its app. You can use a custom solution (design your stickers) or use a ready-made solution that is much cheaper.

Shazam

When you want to identify a song playing around you, just hold your finger down on the camera screen. After a few seconds, a Shazam window will pop up with the song's name and artist. From there, you can snap your Shazamed song to your friends and even add the artist as a Snapchat friend.

Birthday party

Adds a cake emoji next to the name of the birthday boy/girl. This allows friends to send them birthday snaps, displays birthday charms and some other fun surprises from Snapchat. This feature does not reveal the age of the person to other Snapchatters.

Spectacles

Spectacles are sunglasses that capture your world, the way you see it — and empower you to share your perspective with the world in a whole new way.

Memories

Memories is our data-storage service that makes it easier for you to reminisce anytime, anywhere. By agreeing to these Terms, you automatically enable Memories. Once Memories is enabled, it will remain enabled for as long as you maintain your Snapchat account. But you can always turn off certain Memories features through Settings. One of the options we provide with Memories is the ability to create a restricted area by setting a passcode, which might be a PIN or a passphrase or some other mechanism. This is similar to the device-lock option you may be using on your mobile device; by setting a passcode, you make it less likely that another person who gets hold of your device will be able to see what you saved to the restricted area of Memories. But here's a big warning: **if you lose or forget your Memories passcode, or if you enter the wrong one too many times, you will lose access to any content you saved in the restricted area of Memories**. We don't offer any passcode recovery features for this restricted area. You are solely responsible for remembering your passcode.

Shape cut-out tool

This tool is available on any snap. It basically allows the user to cut a desired part of the picture and save it as a sticker for future uses as a sticker. These cut-outs will be available in the stickers section.

Timer

This feature enables the user to apply a self-timer to their snaps for a time of 3s. This means that when the user enables this feature, once he clicks on the 'click picture-circle' dot then the picture will be clicked after 3s of clicking the dot. For instance, this feature is helpful while clicking a group picture where everyone needs a few seconds to pose well.

Search bar

The search bar is available on the camera screen, placed on the top of the screen beside your selfie. This feature enables the user to search for any other snapchatter or any location based stories or any events/happenings around him and much more.

Friendship Profiles

Once two users become friends on Snapchat, on clicking the friend's profile selfie, the user can easily view his friendship profile with the other user. There are charms to determine various factors and enhance knowledge about one person to the other and many more.

Snap Games

Platform to Feature Original and Third Party Games from Game Closure, PikPok, Spry Fox, Zeptolab, and Zynga. Starting 04/04/19, Snap began rolling out a series of made-for-Snapchat games, each designed for high-fidelity, synchronous gameplay:

1. **Bitmoji Party -(Snap Inc.)** - Snap's flagship, first-party IP for Snap Games features you and your friends, brought to life in 3D as your Bitmoji as you compete across four fast-paced mini-games: Pool Party, Kick Off, Spin Session, and Zombie Escape.

2. **Alphabear Hustle - (Spry Fox)** - Alphabear Hustle is a fast-paced cooperative word game with a twist. Players can work together to spell words, collect cute bears, and build their own personal bear village.

3. **C.A.T.S. (Crash Arena Turbo Stars) Drift Race - (ZeptoLab)** - C.A.T.S. is a multiplayer racing game that invites up to 6 players to use boosters scattered along the track to race faster, or slow down opponents. Along the way, collect new vehicles from the C.A.T.S. universe.

4. **Snake Squad- (Game Closure)** - Snake Squad is a multiplayer battle-royale game. Choose your favorite avatar to go into battle and guide your snake around the battlefield with your squad to grow larger to eliminate your competition.

5. **Tiny Royale - (Zynga)** - Tiny Royale™ is a fast, fun top-down battle royale game — the classic battle royale experience, re-invented for the Snapchat platform. Squad up with friends or go solo during quick 2-minute rounds to loot and shoot your way to victory until only one player—or team—remains.

6. Zombie Rescue Squad - (PikPok) - Team up with your fellow Zombie Rescue Squad friends to enter the front lines of the zombie apocalypse. Rescue survivors from the hungry hordes and gather as many supplies as you can. But if you miss the helicopter to safety, you'll be left behind!

Grid

This feature, when chosen, splits the display screen into a grid with a levelling line which would help the snapchatter to click aligned pictures. It is available on the camera screen.

USER CLASSES AND CHARACTERISTICS

Some exemplary enhancement requests from users have been mentioned below:

1. Screenshot:

Client has requested that he should be able to see any Snapchatter's profile who screenshotted his story or snap or conversation or anything related to his profile.

2. Views:

Client has requested that he should be able to see the number of views that his story has got and also a list of names of viewers be displayed.

3. Bitmoji selfie:

Client wants the freedom to choose his own Bitmoji selfie along with a variety of moods so that he can choose one among many depending upon his mood.

4. Notifications:

Client has requested that he should be notified of whenever:

    i. His friends try to text him.

    ii. He receives any snaps.

    iii. Somebody takes a screenshot of anything related to his profile.

    iv. Some account action needs to be taken.

    v. His account needs some security.

5. Choose who can see:

Our client also wants the liability to choose who can view his story and who cannot such that he can customize his setting whenever he wishes to and this setting should be bounded to one story and not all the stories following. A prompt should be

made asking whether he'd like to continue the settings for all his snaps or he'd like to change them for the future stories.

6. *Snap-Kit:*

Our client demands that we provide the facility and platform for developers

OPERATING ENVIRONMENT

The hardware, software and technology used should have following specifications:
• Ability to connect to the Wi-Fi or mobile network.
• Ability to exchange data over the network.
• Touch screen for convenience or Keypad (in case touchpad not available)
• Processor with speed of 500 MHz
• Continuous power supply
• Ability to use camera, gallery, microphone and other services of mobile
• Ability to take input from user
• Device must have 512MB RAM or above
• Functional on iOS and android only.

DESIGN AND IMPLEMENTATION CONSTRAINTS

• Create Snapchat account by entering name and verifying mobile number.
•In case of network not available • If not able to exchange data over network, prompt error message "Connection not available"
 •In case of not able to access services of mobile hardware
        if eg: camera is not working, prompt error message, "Can't access camera".
• Lock Account:
 • If user failed to follow policies of Snapchat.
• In case of spamming by 10 users.
• Maintain Consecutive marked spam Counter.
• Increment spam Counter.
• For every consecutive spam, increment logic counter by 1.
 • Deactivate the account as the spam number reaches 10.

ASSUMPTIONS AND DEPENDENCIES

• Network and data availability
• Power supply
• Better connection for exchanging data over network
• Availability of mobile services

USER DOCUMENTATION

For user manuals and help use help option in the main menu or visit http://www.snapchat.com/ and click on contact us option.

3. SPECIFIC REQUIREMENTS FUNCTIONAL REQUIREMENTS

FUNCTIONAL REQUIREMENT : Camera

Input: Click a picture or shoot a video

Processing state: User can apply lenses/set timer/enable grid/enable flash and then click a selfie or click a picture.

Output: A snap which can be edited and shared

FUNCTIONAL REQUIREMENT : Add friends

Description: This feature enables user to add other Snapchatters as friends based on various parameters.

Input: Search username/click on '+' in quick add/invite your friends to Snapchat and then add them/add friends from phonebook

Processing state: This will process the request to the account and once the other user accepts this request, these two people become friends.

Output: Friend request sent

FUNCTIONAL REQUIREMENT : Bitmoji

Description: Bitmoji is your own personal emoji. Create an expressive cartoon avatar, choose from a growing library of moods and stickers - featuring YOU!

Input: Go to the Bitmoji corner and click on 'select selfie'/ 'edit Bitmoji'/ 'change your clothes'.

Processing state: Snapchat links to Bitmoji app and performs the mentioned tasks.

Output: You'll be redirected to the Bitmoji corner.

FUNCTIONAL REQUIREMENT : Discover
Description: This module allows users to view his friends' stories, stories from all around the globe and they can also share these stories or even take a screenshot or report spam if the content was inappropriate.

Input: Swipe left on the snap camera screen

Processing state: When user swipes left, this gesture is validated and finally comes as discover and thus this page opens.

Output: View friends' stories/ view location-based stories

FUNCTIONAL REQUIREMENT : Filters and lenses
Description: Lenses are used before clicking the snap while filters are applied on a snap, i.e., after clicking the snap. Lenses use hi-level face recognition technology which helps in building the accuracy of merging the lens on the user's personality.

Input: Tap on the snap camera screen and select the desired lens

Processing state: Once inputs are taken, Snapchat uses AI technology to sense the surroundings and fir the lens accordingly.

Output: The desired lens hold its position right in the picture.

FUNCTIONAL REQUIREMENT : Shazam
Description: Shazam is an audio matching software which senses audio for 10s and creates a unique audio fingerprint of the audio. It'll then compare this fingerprint with the ones in its database.

Input: Long press on snap camera screen

Processing state: The music (if any) playing will be sensed and an audio fingerprint will be created. This is then compared with the rest in database.

Output: If match is found then it'll display the song details and a share to option else it'll display 'Error: snap not found'.

FUNCTIONAL REQUIREMENT : Snap-map

Description: Snap map is a real time map powered by mapbox copyrighted by OpenStreetMap and DigitalGlobe. Bitmoji represents everyone using the Snap map meant to resemble them. The bitmoji moves with you, and even jumps into cars of their own when you're driving.

Input: Swipe down on the snap camera screen

Processing state: The swipe down gesture is matched with its gestures and then redirects user to the snap map page.

Output: Snap map will open a Terrain map of the user's whereabouts and his surrounding areas with exact location of his friends.

FUNCTIONAL REQUIREMENT : Chat

Description: Users can send text messages or pictures or videos or audio/video recording(s) or even call their friends via audio/video. The latest releases of Snapchat also include multiplayer games making Snapchat everyone's favorite application to use, age ranging from 13 to infinity.

Input: Swipe right on snap camera screen

Processing state: This gesture is validated and is then finalized to chat option.

Output: Recent conversations are displayed.

FUNCTIONAL REQUIREMENT : Snap streak

Description: Snap streaks are a fun way to keep users engaged in snapping different snapchatters everyday. A snapstreak is the longest streak that two people continuously snap each other. This is estimated from atleast one snap per day adds to the streak while missing a day would break the streak.

Input: Snap with a friend daily

Processing state: The streak counter keeps incrementing in case of daily snapping and would turn to 0 in case of a break in the chain.

Output: A fire emoji with a number which mentions the snap streak.

FUNCTIONAL REQUIREMENT : Snap score
Description: Snap scores are a fun way to keep users engaged in snapping different snapchatters everyday. A snapscore is a score assigned to each profile which keeps building upto millions based upon the usage of Snapchat by the user.

Input: Use Snapchat to your most usage

Processing state: The usage keeps calculating the statistics and build Snapchat scores.

Output: A Snapchat score which keeps increasing, displayed below the Snapchat selfie.

FUNCTIONAL REQUIREMENT : Snap codes
Description: Snap codes are a great way to share one's profile.

Input: Click on the profile, click on Snapchat selfie

Processing state: When the selfie is clicked, the snapcode is generated and then provides some actions on the snapcode

Output: Display snapcode → Share snapcode/url

FUNCTIONAL REQUIREMENT : Memories
Description: Memories is a new cloud-based platform which enables the user to store alimited number of snaps

Input: Swipe up from the snap camera screen

Processing state: This gesture is recorded and is evaluated and then snap goes to get stored in cloud , if user wants to save it for longer time and preserve it from vanishing

Output: Snaps, stories, Camera roll and MyEyes only

FUNCTIONAL REQUIREMENT : My Eyes only
Description: My eyes only is a private feature of Memories which acts as a snap vault with a safe passcode. This passcode cannot be retrieved once forgotten. Once forgotten, all data within vault too shall be erased.

EXTERNAL INTERFACE REQUIREMENTS USER INTERFACES

The Snapchat user interface should be intuitive, such that 99.9% of all new Snapchat users are able to use the app without any assistance.

HARDWARE INTERFACES

The hardware should have following specifications:
- Ability to read gallery
- Ability to exchange data over network
- Touch screen for convenience
- Keypad (in case touchpad not available)
- Continuous power supply
- Ability to connect to network
- Ability to take input from user
- Ability to validate user
- Ability to connect to different applications
- Ability to attach hyperlinks to snaps
- Ability to locate user on a real-time map
- Able to recognize faces using face recognition algorithms
- Ability to sense and hear the music around whenever Shazamed
- Ability to keep a track of all birthdates of each and every user and send them a cake, wishes and many more..
- Ability to show relevant ads
- Should be user friendly

SOFTWARE INTERFACES

The software interfaces are specific to the target other user's Snapchat software systems. Snapchat demands software like GPS, camera, etc… on the following mobileOS (environment):
1. iOS
2. Android

PERFORMANCE REQUIREMENTS SCALABILITY

Snapchat should be able to provide instant messaging services to 1 billion users at any given time.

ROBUSTNESS

In case user's device crashes, a backup of their chat history must be stored on remote database servers to enable recoverability.

PERFORMANCE

Application must be lightweight and must send messages instantly.

SPEED

Application's processing speed should be so high that there should be no delay in executing user's instructions. Also, the application should not crash repeatedly.

CACHE MEMORY

The app shall not consume more cache memory. Even if it does, it must provide a choice to the user to clear app cache manually.

OTHER NON-FUNCTIONAL REQUIREMENTS PRIVACY

The users are provided with the benefit of customizing their privacy settings. Hence, they shall make the best use of these settings. Eg: Choose who can view your story and so on.

SECURITY AND SAFETY

Keep your password safe and don't share it with any other people, applications, or websites under any circumstances. We also suggest using a different password for every service you use.

RELIABILITY

It is very important that the app is reliable as 3B+ users use Snapchat simultaneously. All data collected by Snapchat shall be preserved safely and should follow data hiding.

PORTABILITY

Snapchat can be used on any apple or android phones and tablets.

MAINTAINABILITY

Snapchat is a popular app and hence has maintenance on loop. Snapchat Beta releases all new updates first and looks for acceptance from its customers. Snapchat always surprises its users by releasing fresh updates.

REPORT SPAM

In case of irrelevant, inappropriate content, misbehavior by any snapchatter, or anything uncomfortable or fishy, the snap users are free to report a complaint to Snapchat. Strict action shall then be taken against the individual or post or anything that's been reported spam.

FEEDBACK/WRITE A REVIEW

Once the app has been installed, the customer/user can write his valuable feedback. He can rate the app accordingly and can openly share his thoughts since Snapchat always welcomes opinioned suggestions.

CONSTRAINTS

Important constraints:

1. Login id & password of user must be valid
2. Signup details – mandatory valid details must be provided by user.
3. New accounts with existing account details cannot be created.
4. Sufficient memory must be available in order to click and store snaps – 294 MB
5. Internet availability
6. If location of a user is located in unusual places within frequent intervals, verify user's presence and use of app.
7. If someone reports against a user the report count increments. If this count reaches 10, the user's account must be informed and then should be locked forever.
8. OS required: Android (4.4+), iOS (10+)– mobile/tablet platform
9. User MUST AGREE to all terms & conditions lay by Snapchat lest he cannot use the application.
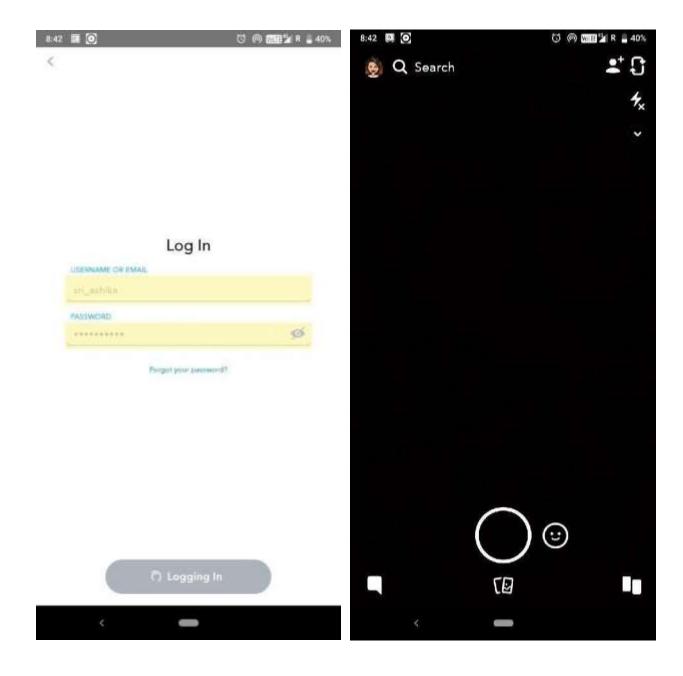
WHITE BOX TESTING

White-box testing is a method of software testing that tests internal structures or workings of an application, as opposed to its functionality. In white-box testing an internal perspective of the system, as well as programming skills, are used to design test cases.

SNAPCHAT BETA

Look out for a "**Snapchat Beta**" option in **Snapchat** Settings. Use **Snapchat**!
The **Beta** may include more bugs and other inconsistencies than you're used to – that's where you come in. Shake to Report bugs and problems you encounter in the app. You can shake for issues you find with new features and with old features, too!
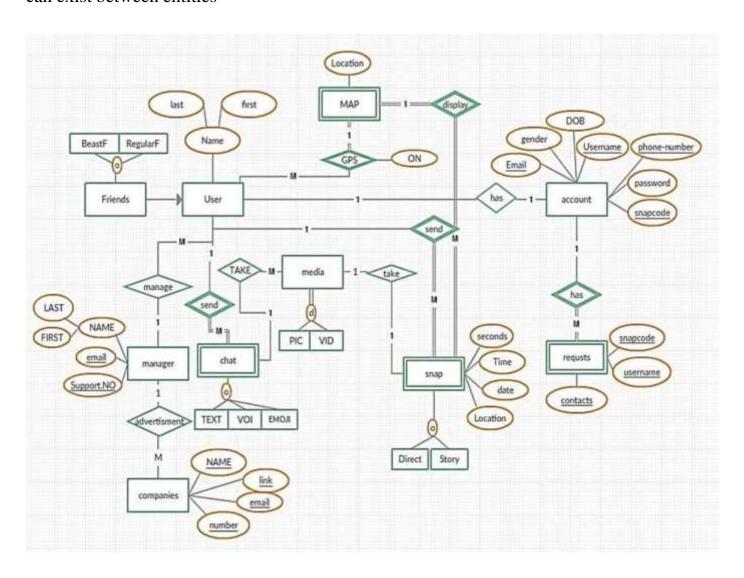
POSSIBLE TEST CASES WITH SNAPSHOTS

CORRECT LOGIN ID AND PASSWORD ARE ENTERED OF AN EXISTING ACCOUNT. OUTPUT SHOULD BE SUCCESSFUL LOGIN ANDSHOULD BE REDIRECTED TO THE SNAP CAMERA PAGE.

4 . DESIGN

ENTITY RELATIONSHIP DIAGRAM

An entity–relationship model describes interrelated things of interest in a specific domain of knowledge. A basic ER model is composed of entity types and specifies relationships that can exist between entities

Snapchat specification and its entity relationship diagram (ERD).

A general explanation of an entity relationship diagram and its significance in software development.

An entity relationship diagram is a visual representation of the entities (objects, concepts, or things) within a system and the relationships between them.

It is commonly used in database design and software development to model the structure and organization of data. The ERD helps to illustrate how different entities are related to each other and how they interact.

In the context of Snapchat, an entity relationship diagram would depict the various entities involved in the system, such as users, messages, stories, contacts, and so on.

It would show the relationships between these entities, such as how users are connected to their contacts, how messages are associated with users, and how stories are linked to users' profiles. The diagram could include additional details, such as attributes (properties) of each entity and the cardinality of the relationships.
(e.g., one-to-one, one-to-many, many-to-many).

The ERD serves several purposes:

Data Modeling: It helps developers and designers to understand the structure and organization of the data within the system. It provides a clear overview of the entities and their relationships, aiding in the development of an efficient and logical database schema.

Communication: The diagram serves as a visual tool to communicate the system's data requirements and relationships between stakeholders, including developers, designers, project managers, and clients. It promotes a common understanding of the system's structure and facilitates effective collaboration.

Database Design: The ERD serves as a blueprint for designing the database schema. It guides the creation of tables, defining primary and foreign keys, establishing referential integrity, and enforcing constraints.
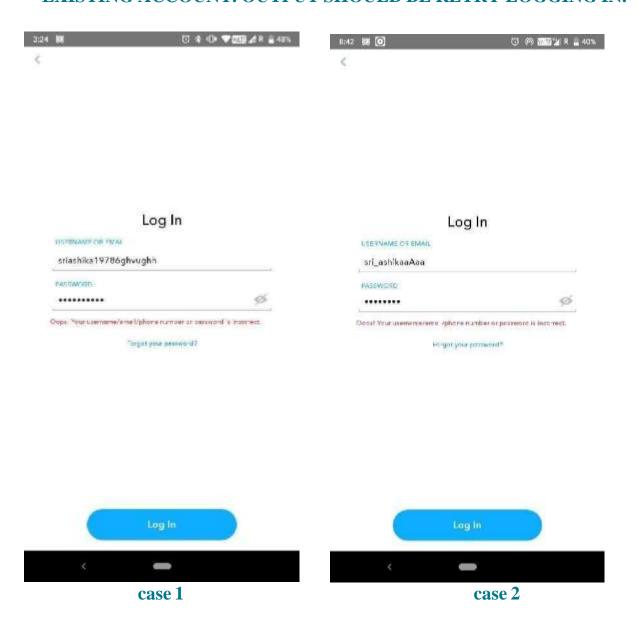
System Analysis: The ERD helps in analyzing the system's data requirements and identifying potential flaws or improvements in the data model. It assists in identifying missing entities, redundant data, or complex relationships that may impact the system's performance or functionality.
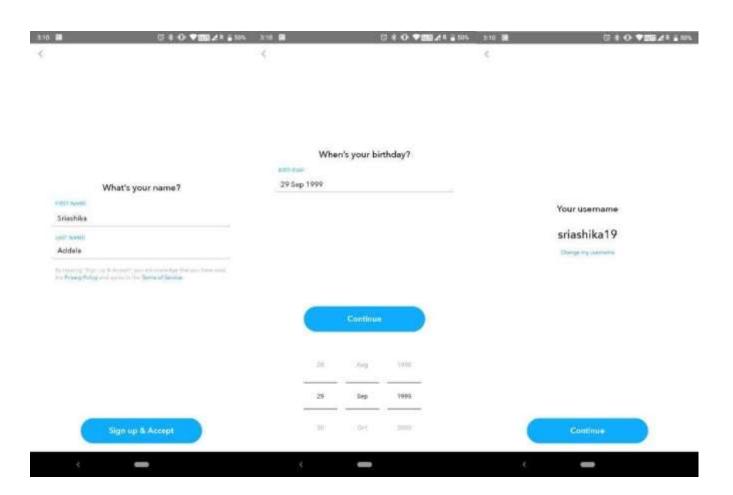
5.TESTING

BLACK BOX TESTING

Black-box testing is a method of software testing that examines the functionality of an application without peering into its internal structures or workings. This method of test can be applied virtually to every level of software testing: unit, integration, system and acceptance.

INCORRECT LOGIN ID AND PASSWORD ARE ENTERED OF AN EXISTING ACCOUNT. OUTPUT SHOULD BE RETRY LOGGING IN.

case 1   **case 2**

VALID DETAILS DURING SIGNUP PROVIDED. OUTPUT SHOULD BE SUCCESSFUL CREATION OF ACCOUNT.

What's your name?

FIRST NAME
Sriashika

LAST NAME
Acidela

By tapping "Sign up & Accept", you acknowledge that you have read the **Privacy Policy** and agree to the **Terms of Service**.

Sign up & Accept

When's your birthday?

BIRTHDAY
29 Sep 1999

Continue

28	Aug	1998
29	Sep	1999
30	Oct	2000

Your username

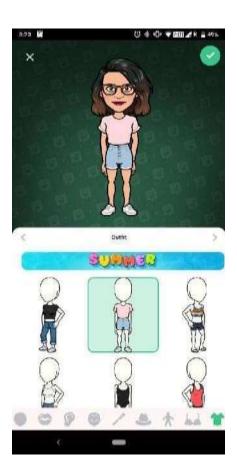sriashika19

Change my username

Continue

APPENDICES

BITMOJI

CREATE

EDIT. CHANGE OUTFIT

CHOOSE SELFIE