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Memento

Description

Memento is an application where user can travel back in time and explore the events that has happened on a particular date. Daily user will be display with events that has happened around the world exactly one year back like news, movies released on that date and weather of his current location . Also user can select a date in the past and view the events that has happened on that particular date.

Intended User

Anyone who is curious to revisit the events that has happened in the past can use this application

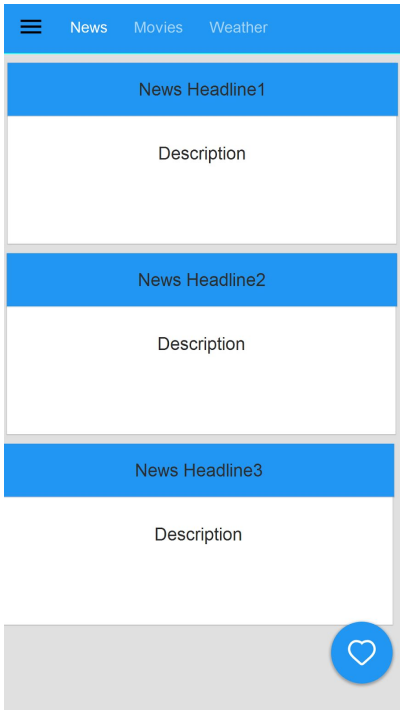
Features

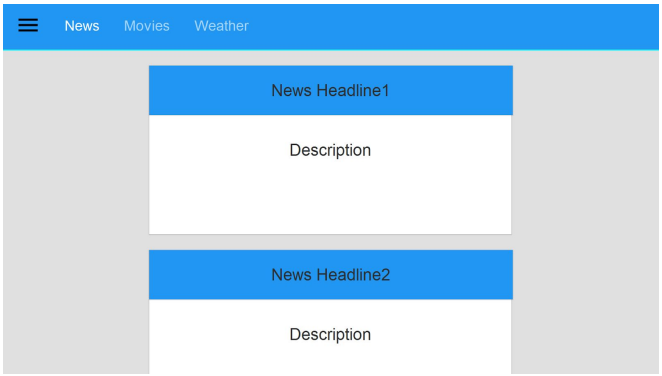
- Daily user will be displayed with list of important events that happened around the world exactly one year back.
- Along with news, application also displays movies released on that date one year back.
- Application also displays weather of the current location one year back.
- Application will also have an option to input the date in past and check the news, movies released and weather on that particular date.
- User can save a particular date in his favourites and can view the details offline.

User Interface Mocks

These can be created by hand (take a photo of your drawings and insert them in this flow), or using a program like Photoshop or Balsamiq.

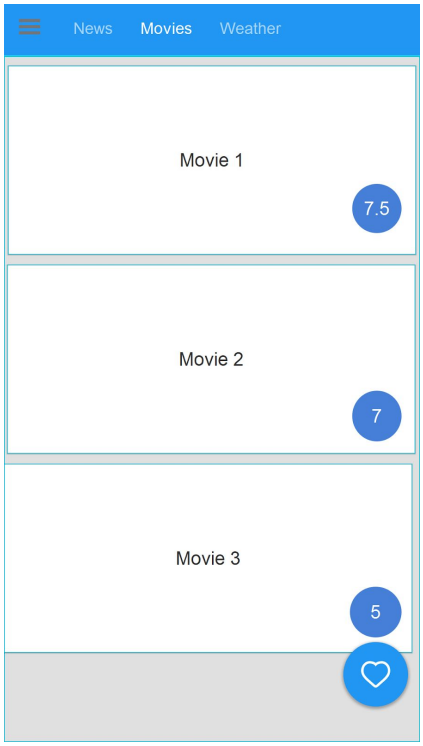
News Tab





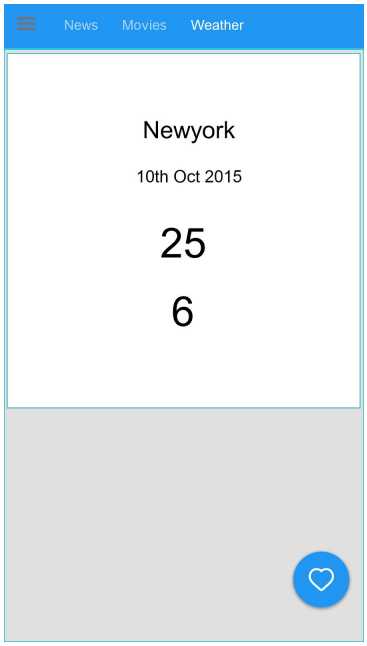
User can view all the important events that has happened on a particular date in the past. He can change the tabs to view news feeds or movie released on that date or weather of the current location on that date. User can click on favourite button to save the date and details locally.

Movies Tab



User is displayed with list of movies released on that date and the rating .

Weather Tab

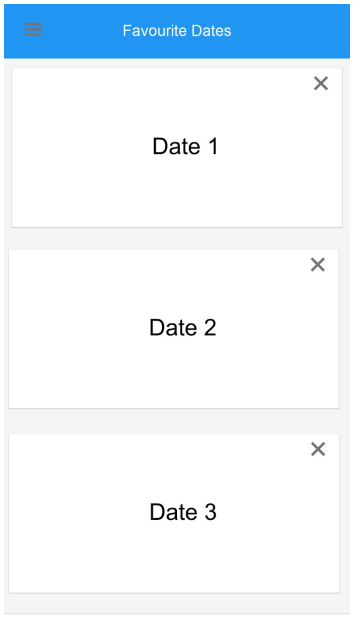


User is displayed with weather of user current location on the selected date in the past

Search Screen

In this screen user can input the date and fetch the events.

Favourite Dates Screen



In this screen user is displayed with list of dates which are favorited. User can either delete the date or he can view the details on selecting a particular date.

Key Considerations

How will your app handle data persistence?

Application uses content provider and SQLite db to store the favourite dates and details.

Describe any corner cases in the UX.

At any point of time if application fails to retrieve the data from server for a selected date in the past application gracefully displays a proper error message.

Describe any libraries you'll be using and share your reasoning for including them.

I will be using picasso library for displaying images.
Planning to use Butter knife for avoiding boilerplate code.
Planning to use greenrobot eventbus library to pass events seamlessly between different components

Describe how you will implement Google Play Services.

Google Play services location API. Using this API, the app will request the last known location of the user's device to fetch the weather details of that location in the past.

Task 1: Google cloud endpoint

Create a service which takes date and location coordinates as input and returns the list of events on that date.
Application basically uses 3 different apis to fetch the details.
Create a method which sends date to News Api to fetch the news.
Create a method to fetch the weather details based on location and date.
Create method to fetch the list of movies released on a date.
Structure the data properly by clubbing all the results and return to the application.

Task 2: Client project setup

- Configure dependencies
- Configure Release Signing
- Configure external libraries
- Add Crash reporting support
- Add application theme, and base styles for toolbar, buttons, text, titles, colors

Task 3: Implement UI for Each Activity and Fragment

- Create Events section Activity to display the list of events(News Highlights, Weather, Movies) of a particular date
- Create EventDetails activity which contains viewpager with tabs for above sections.
- Create Viewpager child fragments to display the individual section list
- Create News details activity/fragment to display particular news item details
- Create movie details activity/fragment to display particular movie details
- Create Weather details fragment to display weather details
- Create Select Date fragment to input the date.

Task 3: Content Provider & Loader

- Create content provider to store data into SQLite db
- Use loaders to display the data in screen

Task 4: Create scheduled job on client

- Using Firebase JobDispatcher create job which runs every day at night 12:00 am to fetch the events from server.
- Fetch the current date and current location from device
- Compute the date exactly one year back
- Consume the service from google cloud endpoint by sending the date and location details.
- Once the events are received from server store them into SQLite db using content provider

Task 5: Display events

- Once user launches the application display the one year back events by fetching from SQLite db using content provider.
- When user click on a particular event display the event in respective details screen.

Task 6: Save favourites

- When user selects a particular date a favourite save the events into SQLite db using content provider
- When user selects favourites screen display the selected favourites in a list using contentprovider and loader