
Smart Invest

Jun 10, 2020

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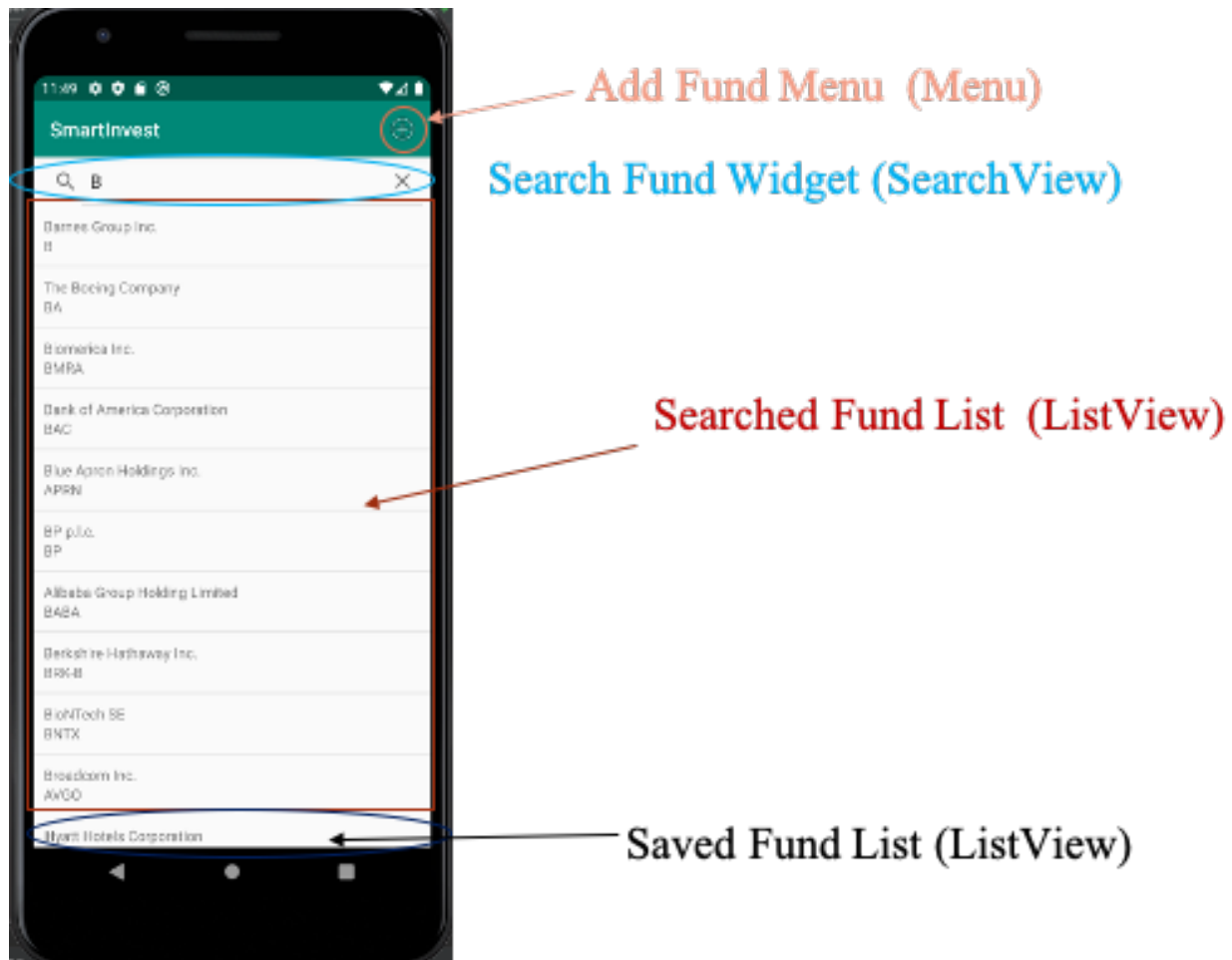
Contents:

The functions of Smart Invest includes:

1. Developing a mobile invest app, together with test apps
2. Store stock transaction records, and calculate the returns automatically.
3. Send alarms to the owner when the stock price hit the preset constrain.

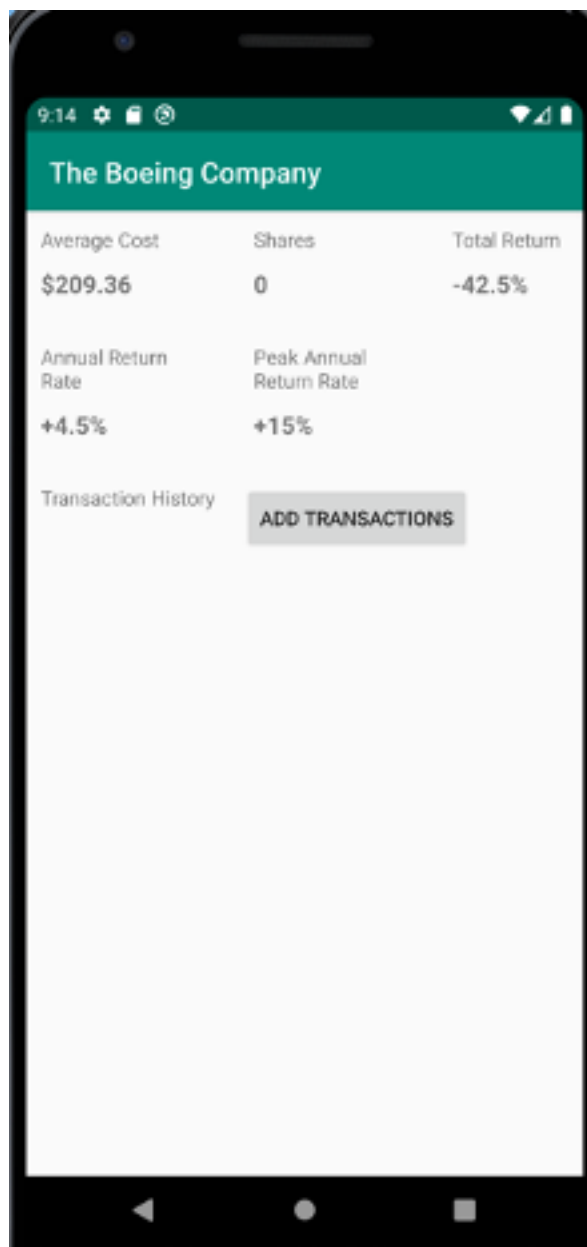
1.1 Main Layout

The main layout of the Smart Invest app is as follows:



1.2 One Fund Detail Layout

The details of one fund are presented as :



And the add/modify transaction interface is designed as:

The screenshot shows a mobile application interface for adding a transaction. At the top, there is a green header bar with the text "Add Transaction of The Boeing Comp...". Below this, the form is divided into several sections. The "Transaction Date" section contains three date pickers: "Mar 15 2019", "Apr 16 2020", and "May 17 2021". The "Transaction State" section features a dropdown menu currently set to "Buy". Below this are four input fields: "Price", "Shares", "Amount", and another "Amount" field. Each input field has its label above it. The "Amount" field at the bottom is highlighted with a red border. A "SAVE" button is located at the bottom right of the form. The entire interface is displayed on a black background, suggesting a mobile device screen.

9:15

Add Transaction of The Boeing Comp...

Transaction Date

Mar 15 2019

Apr 16 2020

May 17 2021

Transaction State

Buy

Price

Price

Shares

Shares

Amount

Amount

SAVE

CHAPTER 2

Transactions Table

The transaction table is designed to store each transaction in the database.

- Attributes
 - `_id` (integer): increased by 1 each insert automatically, primary key
 - `fundSymbol` (text, not null): unique for each fund, obtained from alphaVantage, should be the same universal
 - `fundName` (text): also obtained from alphaVantage
 - `date` (text, not null): transaction date, mm/dd/yyyy
 - `price` (real, not null): transaction price
 - `shares`(integer, not null): transaction share (positive: buy, negative: sell)
 - `amount`(real, not null): transaction amount
- The order of the records in the transaction table is based on `_id`.
 - The order of the date is not strictly from the oldest to the newest if the older record is inserted later.

An example of transaction table is shown below:

<code>_id</code>	<code>fundSymbol</code>	<code>fundName</code>	<code>date</code>	<code>price</code>	<code>shares</code>	<code>amount</code>
1	BABA	Alibaba Group Holding Limited	05/04/2020	190.62	2	381.25
2	BABA	Alibaba Group Holding Limited	05/08/2020	200.98	-1	200.98
3	BABA	Alibaba Group Holding Limited	05/01/2020	196.68	2	393.37
4	BA	The Boeing Company	03/30/2020	144.24	1	144.24
5	BABA	Alibaba Group Holding Limited	04/28/2020	201.78	2	403.56