CSCI 436 - Technology for the Social Good
Group 7 - Better Future
Group Members - Grad Student: Gabriel Lam and Undergrad Students: Dakota Badillo-Cochran, Micah Phelps, and River Yearian.

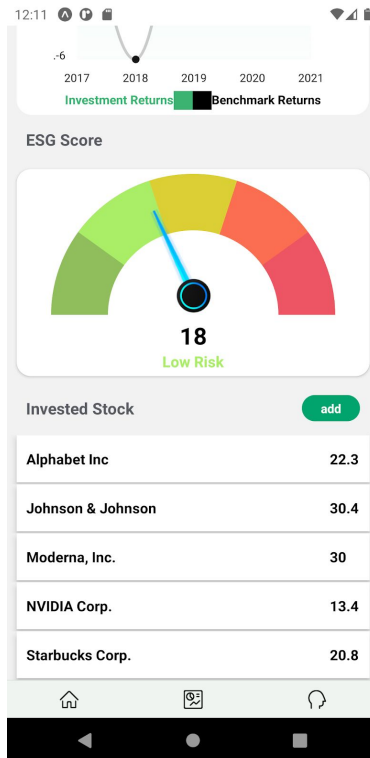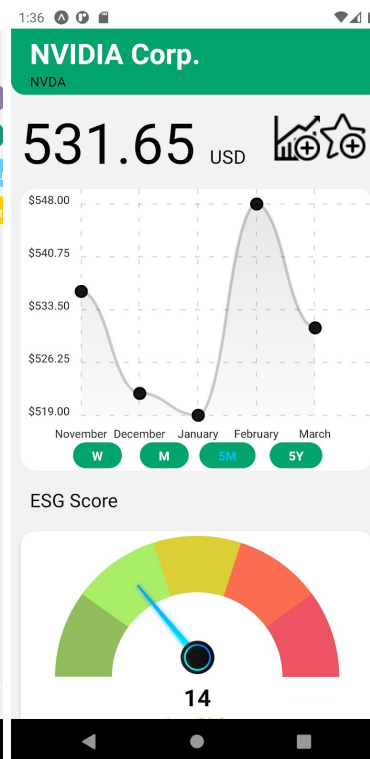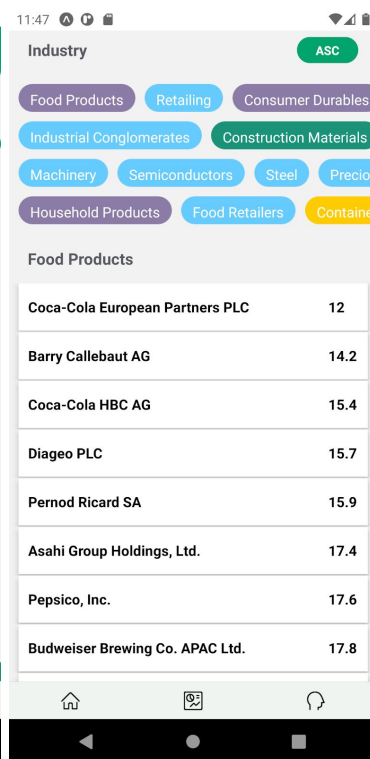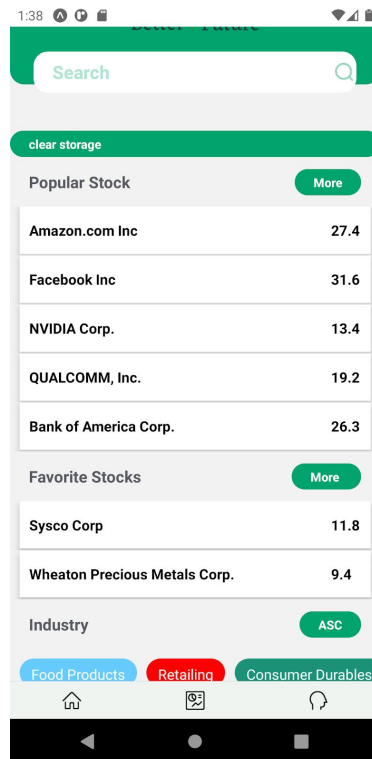## Implementation Checkpoint 4:

Submitted Files Manifest:
- Implementation Checkpoint writeup
- database.sql - our database of ESG scores
- Sector_grab.py - web scraping program for ESG scores
- app.py - Gets ESG rankings from the database online.
- better-future-main.zip - Our React Native app
- readme.txt

Briefly explain what you have completed so far.

Features:	Completed:	Front End	Back End
Main Menu	Y	Search changes, Top Earners display	Top Earners Implementation
DataBase	Y	N/A	Use SQL to make our DB to save all ESG data
API	Y	Fetch data in reactnative	Make the API for react-native
Profile Page	Cancelled	Username, stock favorites, add profile photos	ESG calculations
Investments	Y	Graphs work properly, API updates page, Delete stocks from page	ESG values display, API stock integration, # of shares owned
ESG Investing Tutorial	Y	Simple tutorial explaining ESG	New user popup for this
Company Overviews	Y	Graphs work properly that shows company monthly yearly and weekly stock price, API updates page for company	ESG values display, API stock integration that returns all data(yearly , monthly,weekly)
News	Cancelled	Removed due to time constraints	See reasoning below
Top Stock by ESG	Y	Have main menu integration	ESG values display, API stock integration
Navigation	Y	Place all the pages which included	N/A

Sidebar		the pages on the menu bar	
ESG indicator	Y	Showing the stock ESG score	Make API for getting ESG score from DB
Search	Y	Search function for all US ticker/ company names.	Setup API that can search ticker and company name and return value and data.
WebsiteESG Investing	Y	Basic Explanation of Better Future	Database integration, Better Future Download
Video	Y	Video overview of project	N/A

Give some screenshots of your current implementation

Screenshot 1 (1:38) — Better Future

Search

clear storage

Popular Stock	More
Amazon.com Inc	27.4
Facebook Inc	31.6
NVIDIA Corp.	13.4
QUALCOMM, Inc.	19.2
Bank of America Corp.	26.3

Favorite Stocks	More
Sysco Corp	11.8
Wheaton Precious Metals Corp.	9.4

Industry — ASC

Food Products · Retailing · Consumer Durables

Screenshot 2 (11:47) — Industry — ASC

Food Products · Retailing · Consumer Durables · Industrial Conglomerates · Construction Materials · Machinery · Semiconductors · Steel · Preciou... · Household Products · Food Retailers · Container...

Food Products

Coca-Cola European Partners PLC	12
Barry Callebaut AG	14.2
Coca-Cola HBC AG	15.4
Diageo PLC	15.7
Pernod Ricard SA	15.9
Asahi Group Holdings, Ltd.	17.4
Pepsico, Inc.	17.6
Budweiser Brewing Co. APAC Ltd.	17.8

Screenshot 3 (1:36) — NVIDIA Corp.

NVDA

531.65 USD

$548.00
$540.75
$533.50
$526.25
$519.00

November December January February March

W · M · 5M · 5Y

ESG Score

14

Screenshot 4 (1:21) — About Us

WESTERN
WASHINGTON UNIVERSITY

Origins
Better Future was created with the intention of educating and teaching ethical investing. The program was developed by a group of students from Western Washington University as part of their CSCI 436 - 'Technology for the Social Good' curriculum.

Sources
The ESG data located within the application is sourced from Sustainalytics, and the stock price data is accessed through Tiingo.

Data Collection
All of your data processed by this app is local side only, we do not collect personal information entered into Better Future.

Contact Information
Please contact us with inquiries and bug reports at:
BetterFutureApp@gmail.com

Screenshot 5 (12:20) — ESG Investing

ESG Ratings

What is ESG Investing ?
ESG stands for environmental, social, and governance. Investors who use this approach incorporate information about a business' operational performance across the three pillars:

E – Environmental factors such as a company's carbon footprint, water footprint and waste management policies.

S – Social factors such as labour standards in their supply chain, data protection and the health and safety of employees.

G – Governance factors such as independence and composition of the board, lobbying, bribery and corruption.

How does it help?
It seems commonsense that the way companies treat their employees, their negative environmental footprints and the way they are governed can affect companies'

Screenshot 6 (12:11)

-6

2017 2018 2019 2020 2021

Investment Returns — Benchmark Returns

ESG Score

18
Low Risk

Invested Stock	add
Alphabet Inc	22.3
Johnson & Johnson	30.4
Moderna, Inc.	30
NVIDIA Corp.	13.4
Starbucks Corp.	20.8

Why do you think your current implementation should be considered as 100% of your final implementation?

The app is working! The user can search for stocks, record the number of shares they own, view their portfolio and their shares, assess their ESG score, view company profiles and see their share price / ESG score, get low ESG stocks across all industrial sectors, and view information about ESG.

We have finished the core functionality we set out to do.

Acknowledgment and discussion of any parts of the program that are not working.

The profile page does not update in response to changes in the investment page. This is happening due to Async storage not storing/updating the variables needed to be used in the profile page. This is not a core functionality of our app, as our focus was on the details and investment pages. We have added this functionality to our "upcoming features" list and hope to have it done in our next version.

What is your expected score (as a group) for this checkpoint?
We expect full credit for this assignment.