



# HACKATHON

PRESENTED BY GOLDMAN SACHS

Presenting Partner



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## Investing For Youths (IFY)

Ode To Code

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# Today's youths require personalized solutions in order to make smart decisions regarding their personal finances

## Issue

**Information overload, lack of financial literacy, and an absence of suitable platforms** have hindered youths in Singapore from effectively managing their personal finances

## Key Question

*How can we develop a platform that equips youths with personalized financial information according to their risk profile and goals which would empower them to make informed financial decisions for themselves*

## Solution Objectives

- 1 Introduce a personalized platform for youths to learn more about personal finance
- 2 Ensure only the most relevant information is identified and presented
- 3 Have analysis of information retrieved to help youths make sense of it



## Our Solution – Investing For Youths (IFY)

**A comprehensive & personalized solution for youths based on their risk tolerance and goals**



Telegram-bot questionnaire to ascertain user's risk profile and personal goals



Website to showcase user's hypothetical portfolio according to his/her individual profile



Able to view personalized news and estimated hypothetical returns based on user's portfolio

# Investing For Youth(IFY) offers youths a platform with a personalized hypothetical portfolio that enables them to learn about investments

## Telegram Questionnaire



User starts by accessing our telegram bot and answers some questions about personal finance



Risk Taker

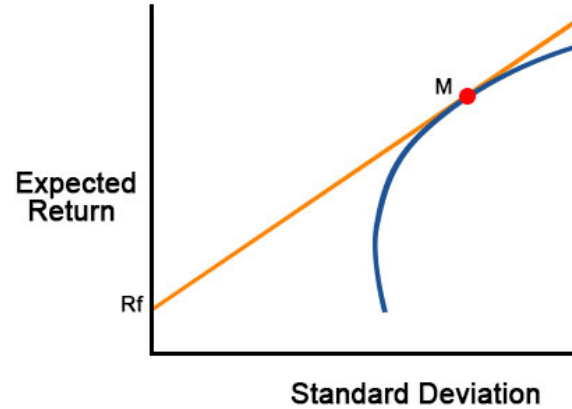
Risk Averse

1

5

Based on our algorithm, the user will be assigned a **risk aversion coefficient** between **1-5**, with 1 being a risk taker and 5 being a risk averse individual

## Hypothetical Portfolio



Next, the user accesses our website and enters his/her risk aversion coefficient

Using Harry Markowitz's **Modern Portfolio Theory**, and our "database" of 17 securities covering 4 beginner-friendly asset classes, we create a **hypothetical portfolio** for the user depending on his/her risk aversion coefficient

## Learning & Analysis of Results



Lastly, the user will be presented with an overview of the portfolio and will be able to track its returns over time

News of the individual securities and beginner friendly articles explaining asset classes in the portfolio will also be shown **real-time** on the website to emulate actual **learning** and **portfolio monitoring**

Situation

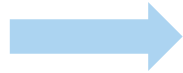
Solution

Conclusion

## Solution Architecture



Amazon  
CloudWatch



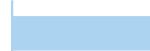
AWS Lambda

Trigger AWS lambda

Construct portfolio and upload  
portfolio.csv file to Amazon S3



Elastic  
Beanstalk



Amazon S3

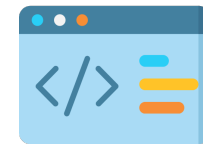
Fetch portfolio.csv from Amazon  
S3 and conduct analysis

Store portfolio.csv

## User Experience



Step 1. Assess Risk Tolerance

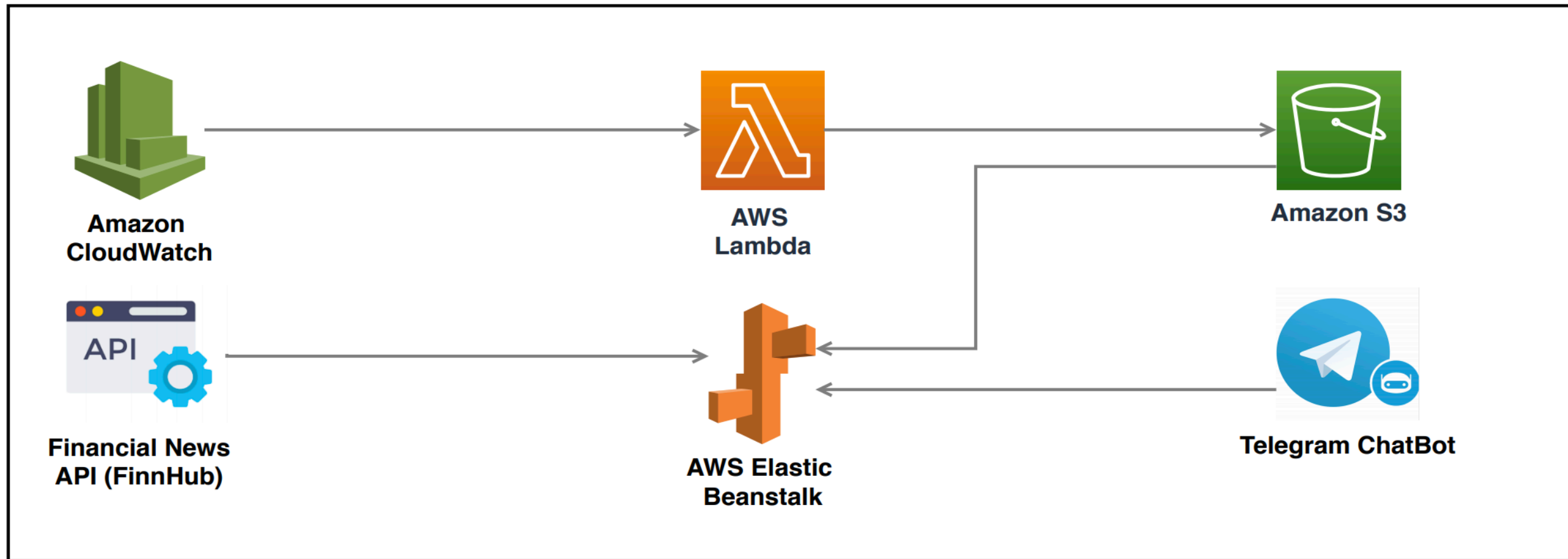


Investing For Youth Portal

Step 2. Access to customised  
portfolio

Step 3. Obtain latest newsfeed on  
companies in the portfolio

# DEMO



**Solution Endpoint:** <http://deploy.eba-tcb5tsyy.us-west-2.elasticbeanstalk.com/>

# Investing For Youths (IFY) will be an innovative, beginner friendly, and seamless way to get youths started on financial literacy and investing

Issues	Information Overload leading to decision paralysis	Youths lack financial literacy to manage personal finances	Absence of comprehensive beginner friendly platforms
Question	How can OdeToCode create a platform to empower youths to make sound financial decisions for themselves?		
Solution	Telegram chatbot to ascertain user's risk profile	Generation of hypothetical portfolio	Monitoring of portfolio via real-time updates
Impact	After using our platform for a certain period of time, youths will be empowered and feel confident to make financial decisions for themselves. To scale, we can include links to regulated brokers in Singapore so youths can get into real investing after testing the waters via our platform and learning the basics		