Twitgood

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Our goal:

Twitgood's goal is to provide Twitter users with meaningful, actionable metrics, by which they can adapt their posting behavior in order to enhance their social traction, and in turn, overall satisfaction with the Twitter platform.

Twitter Account Analyzer

- Create a sleek, easy-to-understand GUI that clearly conveys account information and statistics

- Create visual representations of data through charts and graphs

- Provide insight on how a user could improve their social traction
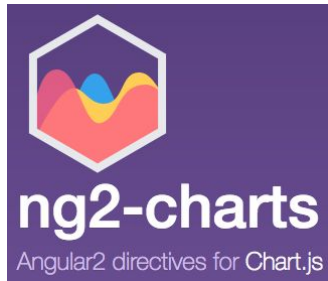
Frontend

Technologies

Angular2: Merges markup with markup logic, makes building large sites simple

Bootstrap: Great framework for making aesthetically pleasing views

Ng2-loading-animate (by oxycoder): Provides the animation that runs during the create account POST request

Ng2-Charts (by Valor-Software): Used create charts populated with user data
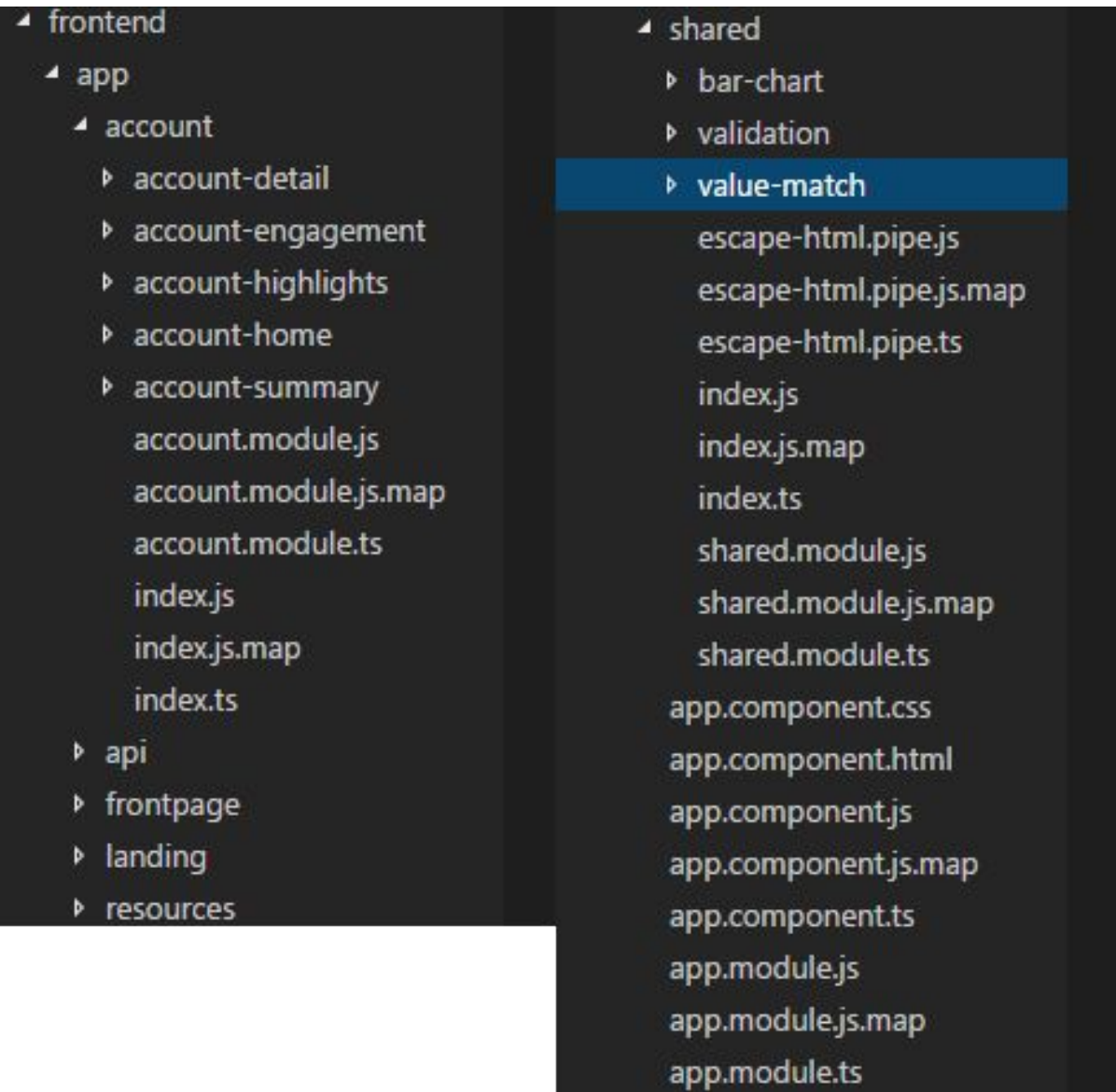
Module Structure

Api contains classes

and services

Two sub-modules:
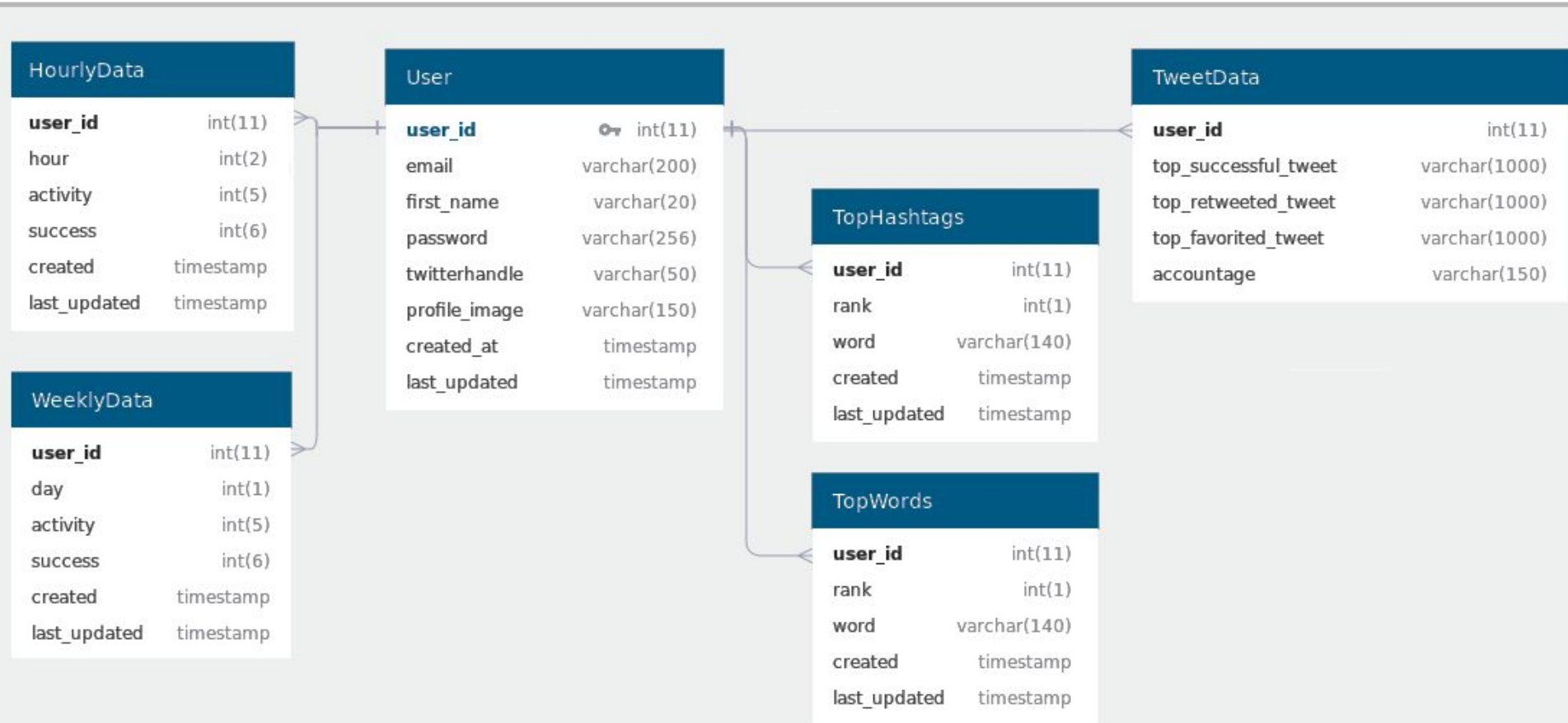
account module

shared module

Backend

Key Features

- Utilized Twitter API through Python

- Secure password storage in database through hashing

- Machine Learning

A Practical Application of Machine Learning

- Utilized machine learning to analyze the positive/negative sentiments in tweets

- Opted for a Naive Bayes Classifier for a speed increase
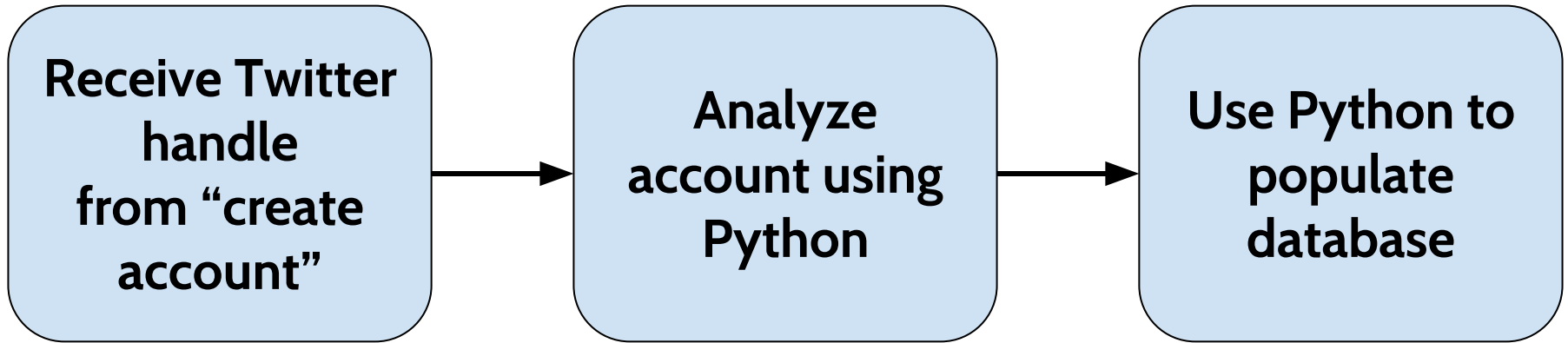
- Model is ~78-80% accurate

Database ER Diagram

HourlyData

user_id	int(11)
hour	int(2)
activity	int(5)
success	int(6)
created	timestamp
last_updated	timestamp

WeeklyData

user_id	int(11)
day	int(1)
activity	int(5)
success	int(6)
created	timestamp
last_updated	timestamp

User

user_id	🔑	int(11)
email		varchar(200)
first_name		varchar(20)
password		varchar(256)
twitterhandle		varchar(50)
profile_image		varchar(150)
created_at		timestamp
last_updated		timestamp

TopHashtags

user_id	int(11)
rank	int(1)
word	varchar(140)
created	timestamp
last_updated	timestamp

TopWords

user_id	int(11)
rank	int(1)
word	varchar(140)
created	timestamp
last_updated	timestamp

TweetData

user_id	int(11)
top_successful_tweet	varchar(1000)
top_retweeted_tweet	varchar(1000)
top_favorited_tweet	varchar(1000)
accountage	varchar(150)

Endpoints

- Authenticate user [POST] [/users/auth/]

- Create a New User [POST] [/user/]

- Get User Data [GET] [/user/{twitter_handle}]

- Get User Account Info [GET] [/user/info/{twitter_handle}]

Account Creation Flowchart

Receive Twitter handle from "create account"	→	Analyze account using Python	→	Use Python to populate database

Live Demo

Questions?

Twitter Information Processing

Tweet Sentiment Analysis

Frontend

Twitter API
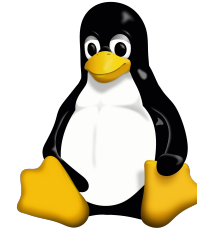
LAMP Stack

SQL ORM for Python