Team Nahasapeemapetilon -- The End
SoftDev pd07
2019-01-07

Roles
Adil Gondal - Prime Minister
Amit Narang - Chief Justice of India
Rubin Peci - Minister of Defense
Qian Zhou - Minister of Home Affairs

CryptUwU - Cryptocurrency Forum

Components:
Front End:
Foundation: Make page look nice; perhaps allow dropdowns so that less space may be needed and facilitate navigation
JavaScript: Used to facilitate navigation and display of threads without the need to refresh page; perhaps alerts could be used to notify user in things such as login
APIs:
Nomics, provide current/historical data for cryptocurrencies; to be displayed in CHARTS page

Libraries:
json, turn strings into dictionaries, allow for parsing through data
Flask, create page
urllib, retrieve info from urls
time, creates timestamp
sqlite3, database
passlib, hashing passwords
util
crypto.py, connects with nomics api and retrieves appropriate data;
    uses urllib, json;
forum.py manages forum functions, such as: making a thread and replying to a thread, upvote, preparing data for display in forum.html and thread.html; (preparing data for display in home.html?)

connects with <u>posts.db</u>, <u>users.db</u>;
    uses <u>sqlite3</u>, <u>time</u>;
    If too big, may split into another <u>thread.py</u> to handle
individual thread issues
user.py, enables user function, such as login verification,
register account, and deal with posts/comments/votes that user
has made;
    connects with <u>users.db</u>;
    uses <u>sqlite3</u>,<u>passlib</u>;

<u>data</u>

keys.json, store keys
users.db, contain tables <u>login</u>, <u>user_posts</u>, <u>user_saved_coins</u>
posts.db, contain tables <u>threads</u>, <u>thread_id</u>

<u>templates</u>

home.html, home page; uses <u>forum.py</u> to generate <u>crypto.py</u> to get
Bitcoin graph
profile.html, profile page; uses <u>user.py</u> to generate
register.html, allows user to register or login
forum.html, displays the threads for each subtopic of a topic;
uses <u>forum.py</u> to generate
thread.html, displays particular thread; uses <u>forum.py</u>
charts.html, information about major cryptocurrencies; uses
<u>crypto.py</u> to generate

<u>app.py</u>

root: display <u>home.html</u>; calls on <u>forum.py</u> & <u>crypto.py</u>
auth: authenticates with <u>user.py</u>, (correct: redirects to
<u>profile</u>)
profile: loads <u>profile.html</u>
register_page: loads <u>register.html</u>
register: authenticates registration w/ <u>user.py</u>, (yes: <u>root</u>, no:
<u>register_page</u>)
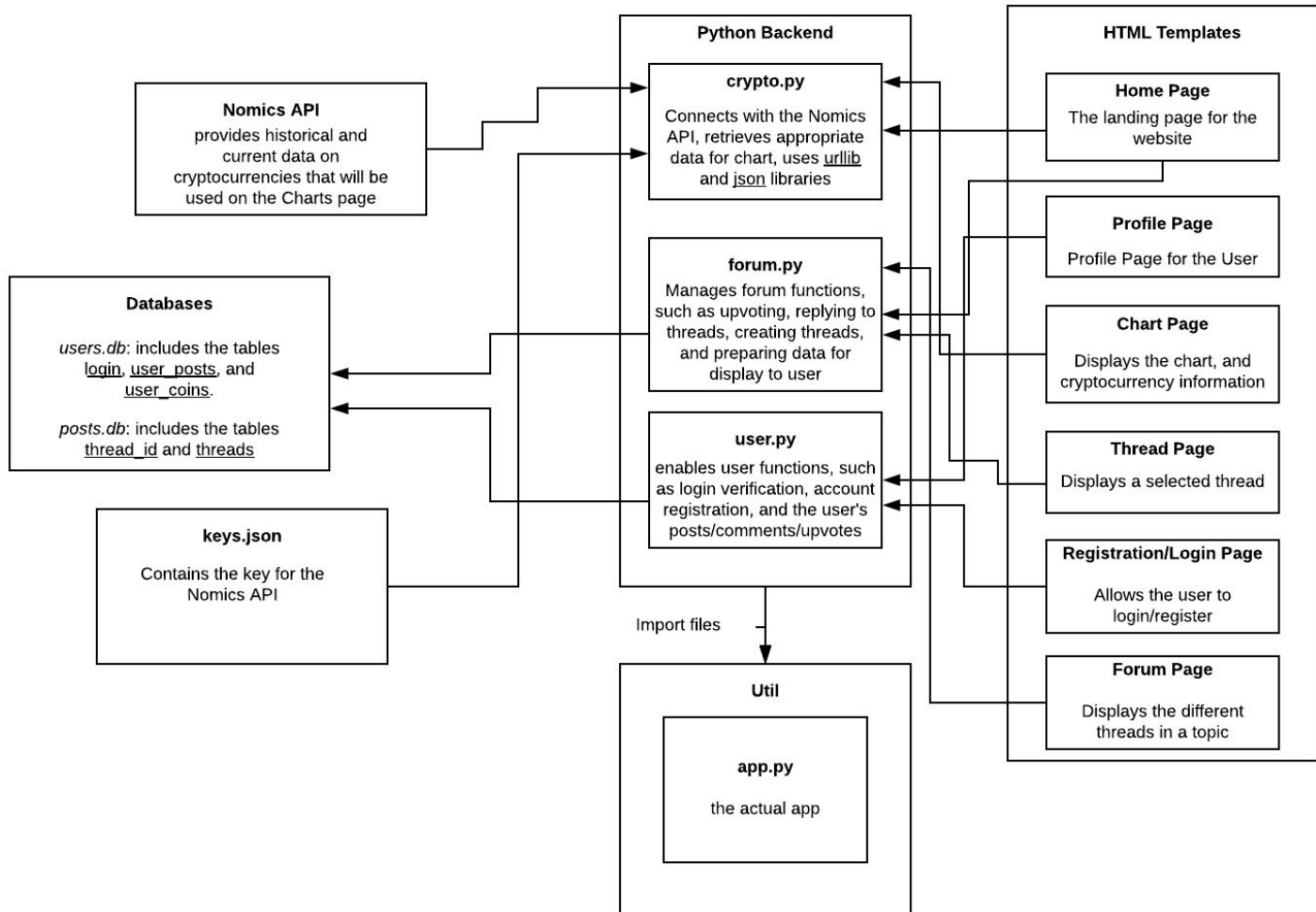**forum**: loads <u>forum.html</u>, gets request (topic & subtopic), w/
<u>forum.py</u>
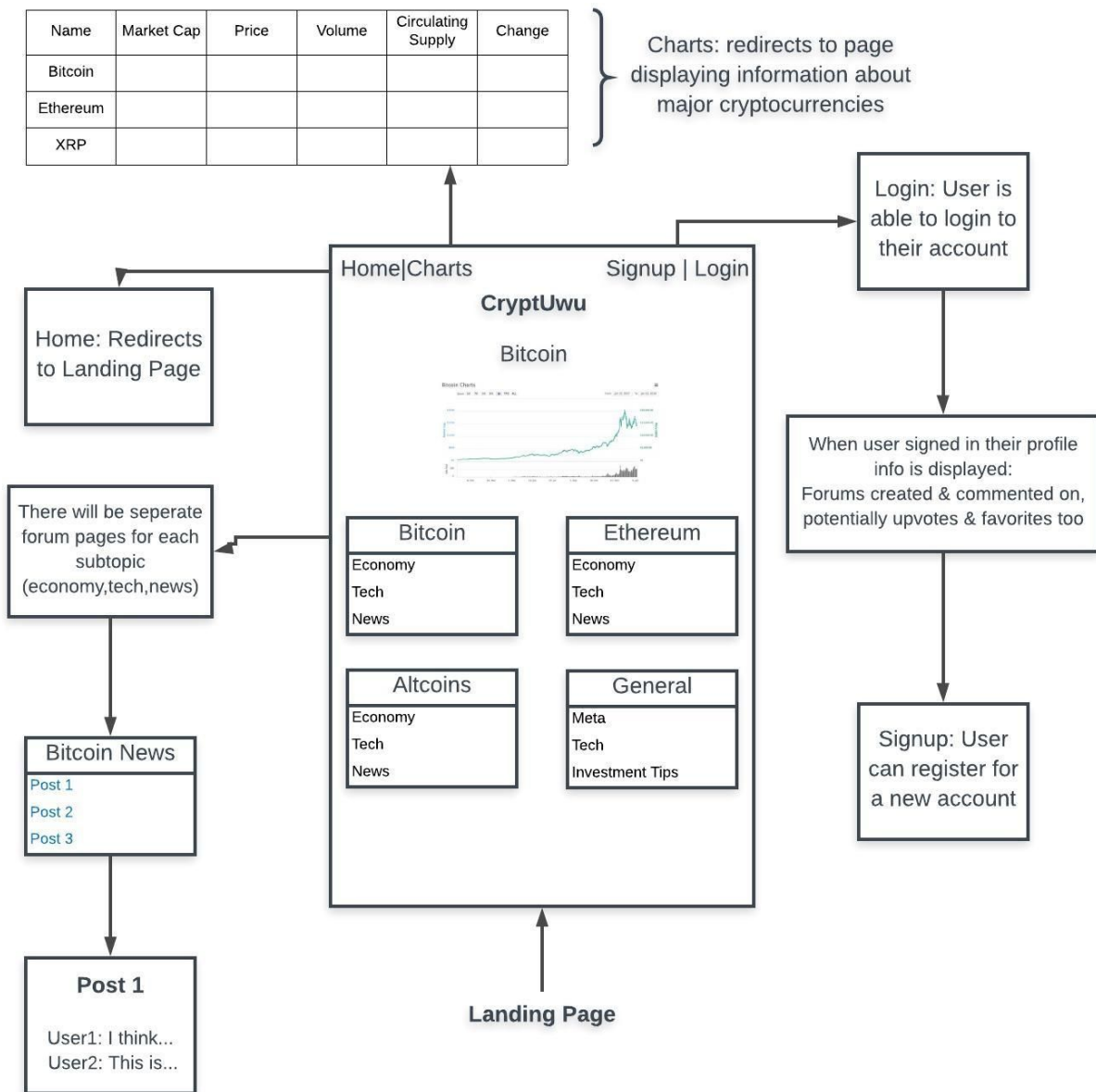**thread**: loads <u>thread.html</u>, gets request (id), with <u>forum.py</u>
addpost: adds a post, uses <u>forum.py</u> (redirect: <u>forum</u>)
chart: loads <u>charts.html</u>, uses <u>crypto.py</u>

Component Map:

Python Backend

crypto.py
Connects with the Nomics API, retrieves appropriate data for chart, uses urllib and json libraries

forum.py
Manages forum functions, such as upvoting, replying to threads, creating threads, and preparing data for display to user

user.py
enables user functions, such as login verification, account registration, and the user's posts/comments/upvotes

Nomics API
provides historical and current data on cryptocurrencies that will be used on the Charts page

Databases
users.db: includes the tables login, user_posts, and user_coins.

posts.db: includes the tables thread_id and threads

keys.json
Contains the key for the Nomics API

Import files

Util

app.py
the actual app

HTML Templates

Home Page
The landing page for the website

Profile Page
Profile Page for the User

Chart Page
Displays the chart, and cryptocurrency information

Thread Page
Displays a selected thread

Registration/Login Page
Allows the user to login/register

Forum Page
Displays the different threads in a topic

Site Map:

Name	Market Cap	Price	Volume	Circulating Supply	Change
Bitcoin					
Ethereum					
XRP					

Charts: redirects to page displaying information about major cryptocurrencies

Login: User is able to login to their account

Home|Charts   Signup | Login

CryptUwu

Bitcoin

Home: Redirects to Landing Page

When user signed in their profile info is displayed:
Forums created & commented on, potentially upvotes & favorites too

There will be seperate forum pages for each subtopic (economy,tech,news)

Bitcoin
Economy
Tech
News

Ethereum
Economy
Tech
News

Altcoins
Economy
Tech
News

General
Meta
Tech
Investment Tips

Bitcoin News

Post 1
Post 2
Post 3

Signup: User can register for a new account

Post 1

User1: I think...
User2: This is...

Landing Page

Database Schema:

login

Username (String)	Hashed password (String)
"rpeci"	90281u3hojkasjsa

rpeci_threads (repeat for all users)

POST (string)	ID (int)
"I love bitconnect!"	1

rpeci_posts (repeat for all users)

POST (string)	ID (int)
"I still love bitconnect!"	2

rpeci_saved_coins (repeat for all users)

Coin (string)
Bitcoin

1 (will always be the thread id, repeat for all threads)

Post (string)	ID(int)	user(string)	Time-stamp (string)	Upvotes
"I love bitconnect!"	1	rpeci	2018-01-07: 13:15	100

(contains the rest of the thread with each post getting a global number)

Threads (stores all the threads)

Topic (String)	ID(int)	Post(string)	user(string)
btc_news	1	"I love bitconnect!"	rpeci

Task Delegation:
Adil Gondal

- Setup login system using passlib to hash and salt passwords
- Oversee the project and make changes as necessary

Amit Narang
- Work on Landing Page and Charts page for website
- Work on CSS for web pages

Rubin Peci
- Utilize the Nomics API to get accurate crypto-market information to display to users
- Setup the database files
- Help with the backend for the forum, once done with the cryptocurrency API

Qian Zhou
- Work on setting up subpages for forums
- Work on CSS for web pages