

# T3am

SJSU - Summer 2018

CMPE 202

Professor Paul Nguyen

Professor Gopinath Vinodh

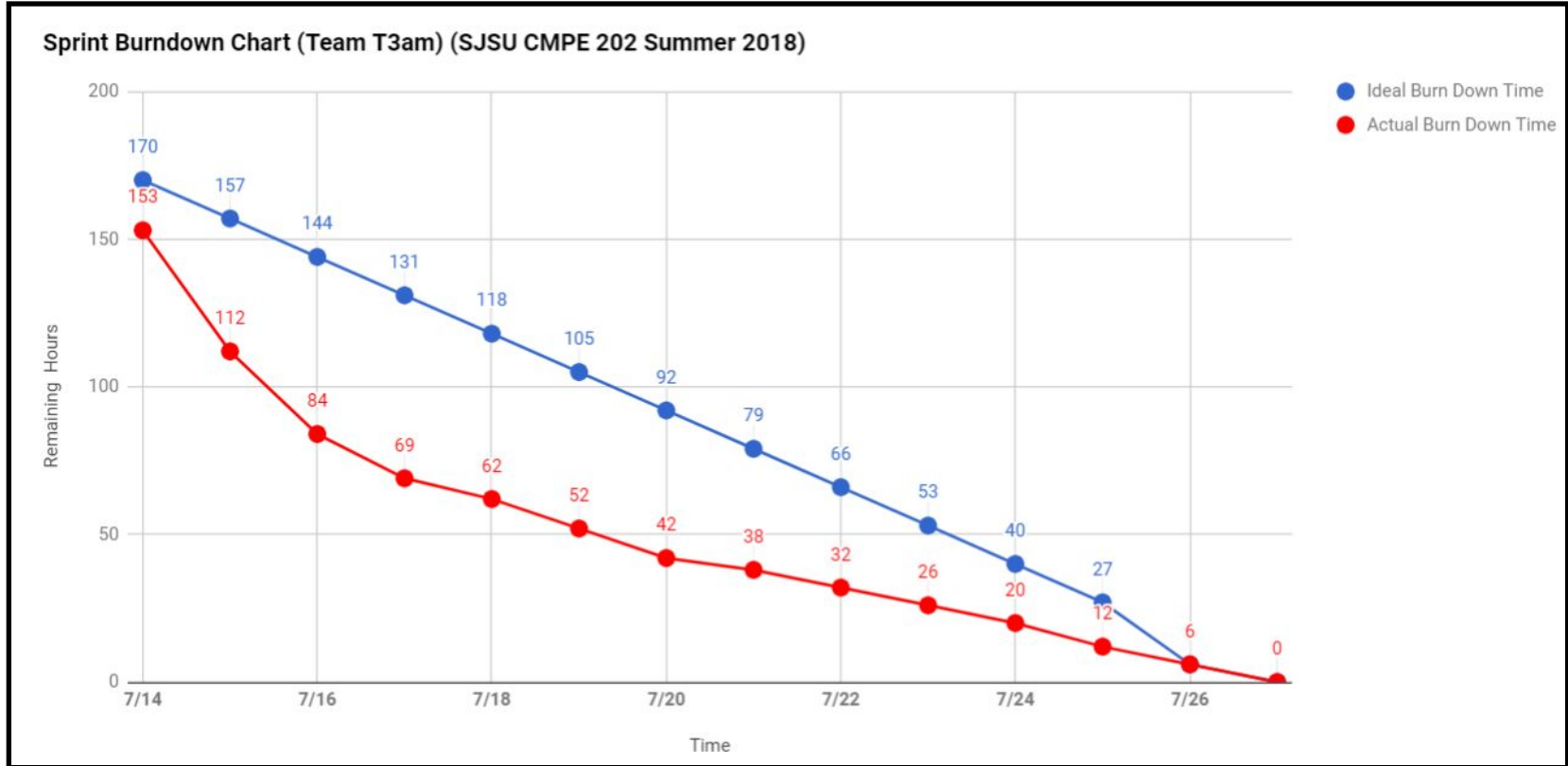
# Members

- Sy Le (006088940)
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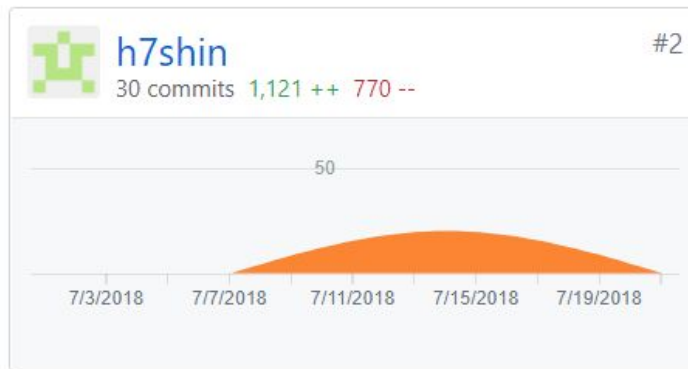
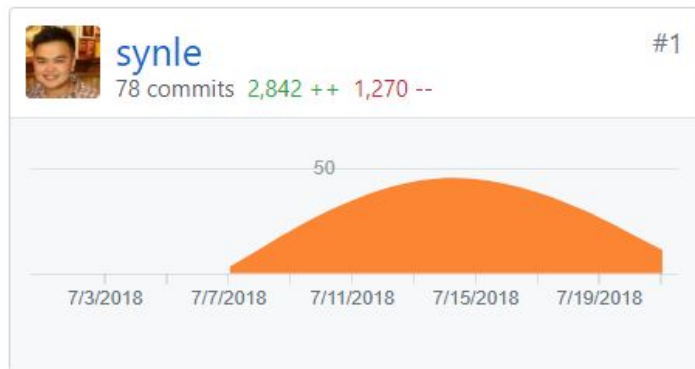
# Epics we completed...

- Back end / REST API
- Persisting data to AWS RDS
- Deployed app as Docker Image in AWS Elastic Container Registry and AWS Fargate
- Front end web app deployed in Heroku

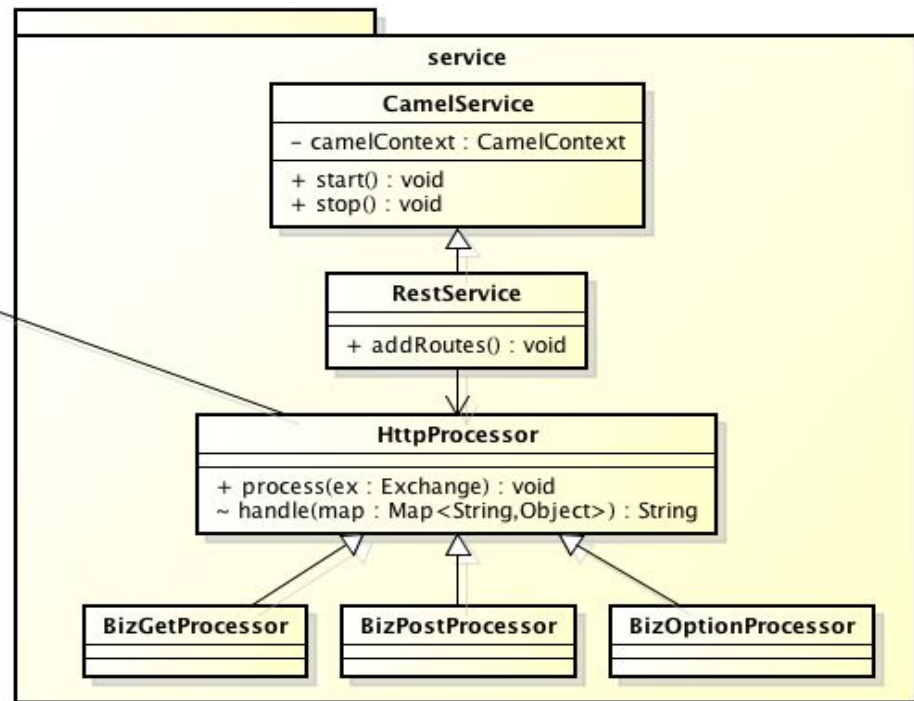
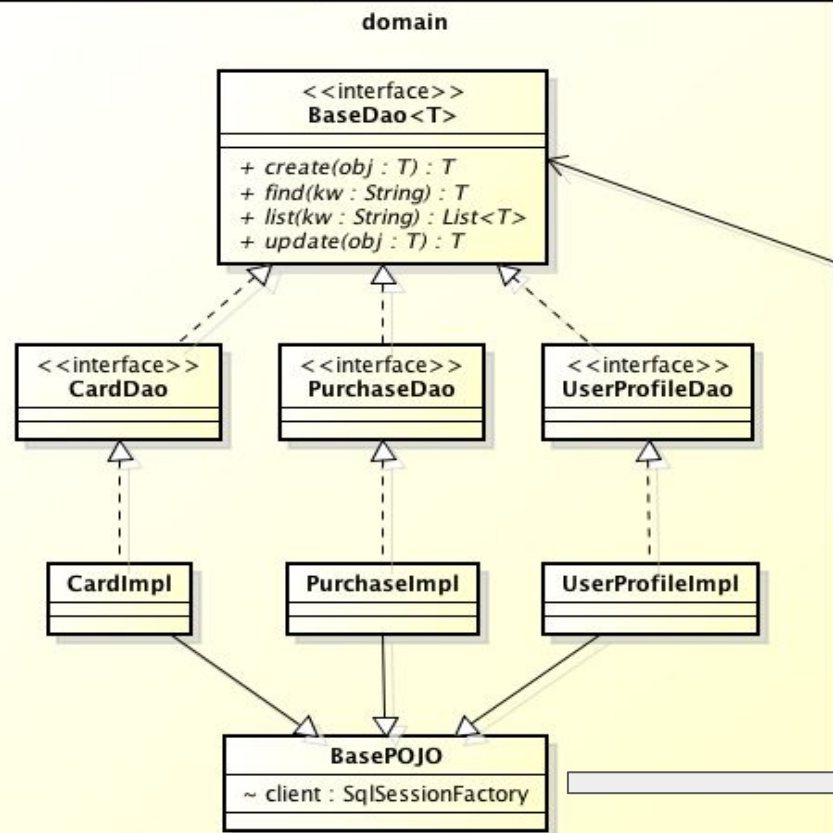
# Team Sprint (170 hours)



# Code Contribution Chart



# Backend



# Docker - push image upstream to AWS

- Push the docker image up to AWS Elastic Container Registry (ECR)
- `docker tag t3am 914381644891.dkr.ecr.us-east-1.amazonaws.com/t3am`
- `docker push 914381644891.dkr.ecr.us-east-1.amazonaws.com/t3am`

```
[root@ip-172-31-3-105 t3am]# docker tag t3am 914381644891.dkr.ecr.us-east-1.amazonaws.com/t3am
[root@ip-172-31-3-105 t3am]# docker push 914381644891.dkr.ecr.us-east-1.amazonaws.com/t3am
The push refers to a repository [914381644891.dkr.ecr.us-east-1.amazonaws.com/t3am]
a76d79f03ef5: Pushed
35c20f26d188: Layer already exists
c3fe59dd9556: Layer already exists
6ed1a81ba5b6: Layer already exists
a3483ce177ce: Layer already exists
ce6c8756685b: Layer already exists
30339f20ced0: Layer already exists
0eb22bfb707d: Layer already exists
a2ae92ffcd29: Layer already exists
latest: digest: sha256:816288955be83bf80de4d9cb02703024897909d8a1e944ad65cb65c8b3160969 size: 2212
```

# Docker - Run Image from Fargate

Details

Tasks

Events

Auto Scaling

Deployments

Metrics

Load Balancing

Target Group Name	Container Name	Container Port
ecs-t3am-s1	t3am-c	8202

Network Access

Health check grace period

0

Allowed VPC

vpc-541c5533

Allowed subnets

subnet-1ebe6a57

Security groups\*

sg-708e0a0a

Auto-assign public IP

ENABLED

Service discovery

Service discovery endpoint

t3am-s.local

Service discovery name

t3am-s

DNS record type	Contain...	TTL
A	--	60

Behind LB

Automatic Provisioning

Service Auto Scaling ☐ Do not adjust the service's desired count  
☒ Configure Service Auto Scaling to adjust your service's desired count

Minimum number of tasks  ⓘ  
Automatic task scaling policies you set cannot reduce the number of tasks below the minimum.

Desired number of tasks  ⓘ

Maximum number of tasks  ⓘ  
Automatic task scaling policies you set cannot increase the number of tasks above the maximum.

Task status: <span>Running</span> Stopped			
<div>Filter in this page</div>			
Task	Task Definition	Last status	Desired status
3da8ebe2-e253-48f7...	t3am-t:1	RUNNING	RUNNING
5c2e6761-bfc4-4226...	t3am-t:1	ACTIVATING	RUNNING
7bf7dfb1-4f07-4c17-...	t3am-t:1	PENDING	RUNNING



# DB Schema

## ▼ public.sb\_user

### ▼ Columns

user_id	CHARACTER VARYING
email	CHARACTER VARYING
full_name	CHARACTER VARYING
password	CHARACTER VARYING
balance	NUMERIC
date_added	BIGINT

## ▼ public.sb\_card

### ▼ Columns

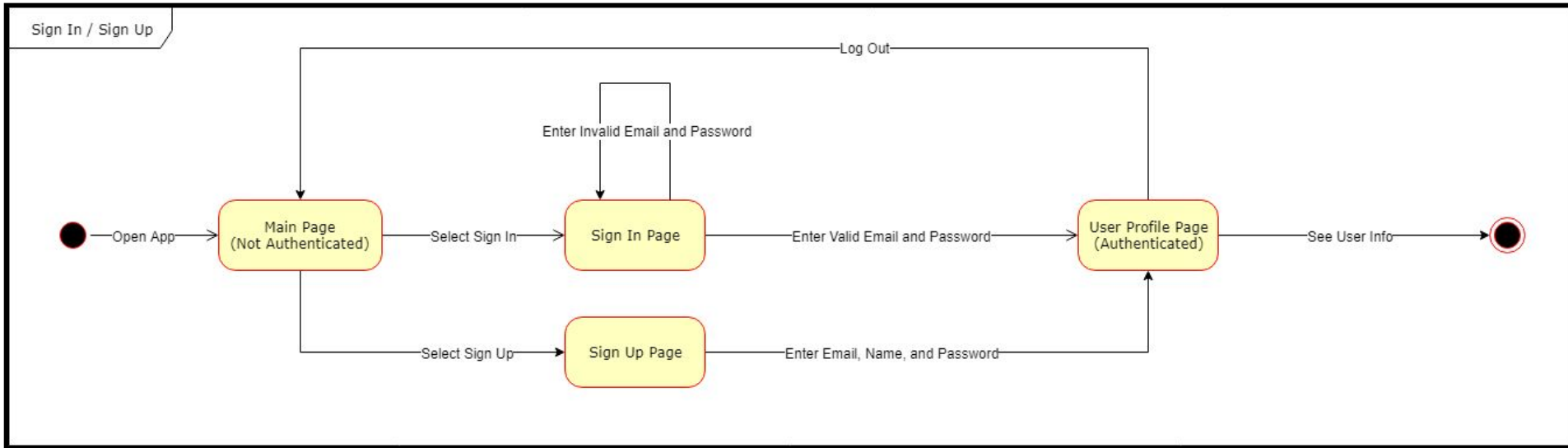
card_id	BIGINT
uid	CHARACTER VARYING
number	CHARACTER VARYING
code	CHARACTER VARYING
balance	NUMERIC
date_added	BIGINT

## ▼ public.sb\_purchase

### ▼ Columns

purchase_id	BIGINT
uid	CHARACTER VARYING
balance	NUMERIC
date_added	BIGINT
note	CHARACTER VARYING

# Front End - State Diagram

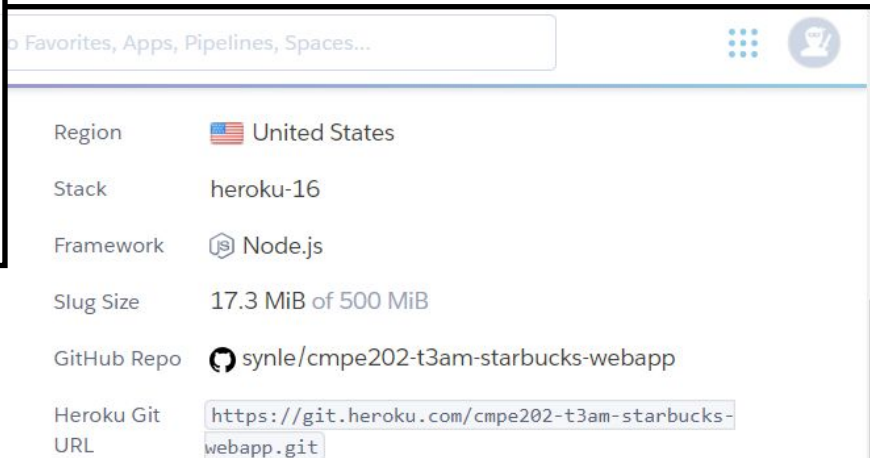
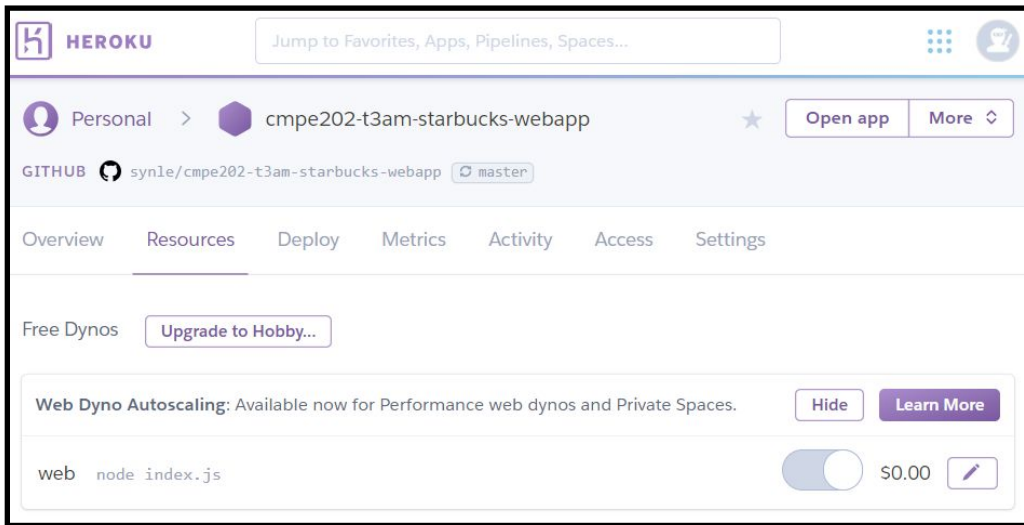


# Front End - Technologies

- Bootstrap / jQuery UI
- jQuery
- Moment.js
- (live demo will be given at the end of the demo...)

# Front End - Heroku Deployment

- App is deployed on Heroku



# Unit Testing and CI/CD

- JUnit for unit testing Java packages
- Python unit test for end-to-end testing
- Jenkins to deploy mock web-server and run end-to-end testing

```
python -m unittest api_tests
```

```
...
```

```
-----  
Ran 3 tests in 0.249s
```

```
OK
```

```
dock2 ~/wses/su18-202-t3am/jenkins/tests$
```

```
python-requests/2.6.0 CPython/2.7.5 Linux/3.10.0-862.3.2.el7.x86_64 -
```

```
.
```

```
-----  
Ran 3 tests in 0.635s
```

```
OK
```

```
make[2]: Leaving directory `/var/lib/jenkins/workspace/API Testing/su18-202-t3am/jenkins/tests'
```

```
make[1]: Leaving directory `/var/lib/jenkins/workspace/API Testing/su18-202-t3am/jenkins'
```

```
+ set +x
```

```
sed -i "s/value=\"_your_db_password\"/value=\"****\"/g" starbucks2-domain/src/main/java/sql-maps-config.xml
```

```
++ ps -ef
```

```
++ grep 'java.*jar'
```

```
++ grep -v grep
```

```
++ grep Rest
```

```
++ awk '{print $2}'
```

```
+ kill -9 3706
```

```
make: *** [run] Killed
```

```
Finished: SUCCESS
```

# Team - Live Demo

- Demo Link
  - <http://cmpe202-t3am-starbucks-webapp.herokuapp.com>
  - username: **syle@gmail.com**
  - password: **password**