Assist Robot

Phase III

Project Report

Project Team – 8

Team Members

Priyadarsini Nidadavolu(17)

Deepthi Priyadarshini Penmetsa(22)

Dheeraja Vallabhaneni(28)

Tej Kumar Yentrapragada(33)

Table of Contents

1. Introduction:

The main goal of the project is to help people in finding their misplaced objects. Basically humans have a tendency to forget their belongings somewhere in their house and search for it for hours together. For example, if I have an important business meeting to attend, but I don't remember where I placed my car keys, then I will be in huge loss. So to prevail in these circumstances here comes our Friendly Robot- My Friend which could assist me in keeping track of my personal things. So what this robot will do is that it will have entire map (laser scan) of the building and objects in the building in its memory. So we will feed the robot with the objects that are highly important to us, like car keys, some files, phone and laptop. This robot will keep its eye on these objects and notify their location to its master upon request. Additionally our Robot who will be an eFriend who will help us to choose the furniture to our home. Also our robot will suggest us the top rated books.

2. Project Goal and Objectives:

The primary goals of our project is described below:

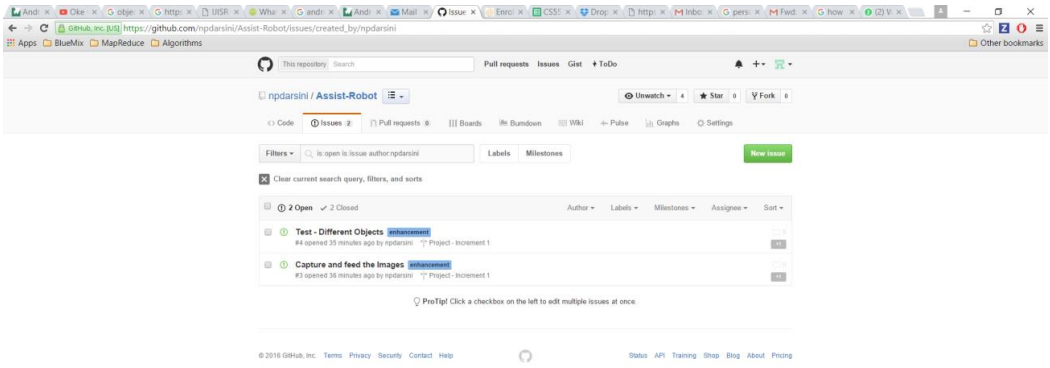
- To implement a module which has an interaction with robot. Eg: You can ask few questions to the robot and the Robot will be responding to you back. You can ask the robot about your misplaced phone. So that it will answer you after it had found the phone.
- To make the robot learn about the personal items like chargers, phones, watch, keys etc.
- To design a robot which can find the learned objects that are misplaced in a building.
- To build a recommendation system which will be able to recommend the list of books which are rated high and are related to our interests.
- To build a recommendation system which will suggest us about the latest furniture details, their quality and from which brand/ shop we could purchase from. This feature enables us to decorate our houses with rich interior designing.
- To send a notification to your smart watch when it finds the lost object.
- To remind the user about his day to day events that were previously taught.
- To make the robot act as an assistant in getting things specified by the user. (Mr Robot – Get me my phone).

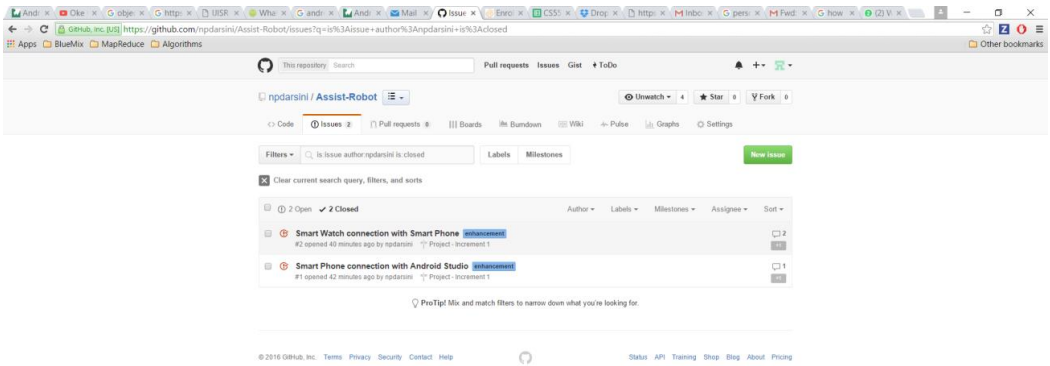
- To make a single robot act as assistant to all the people living in same house. It recognizes the user first and then assists that particular user in finding the belongings.

3. Project Plan:

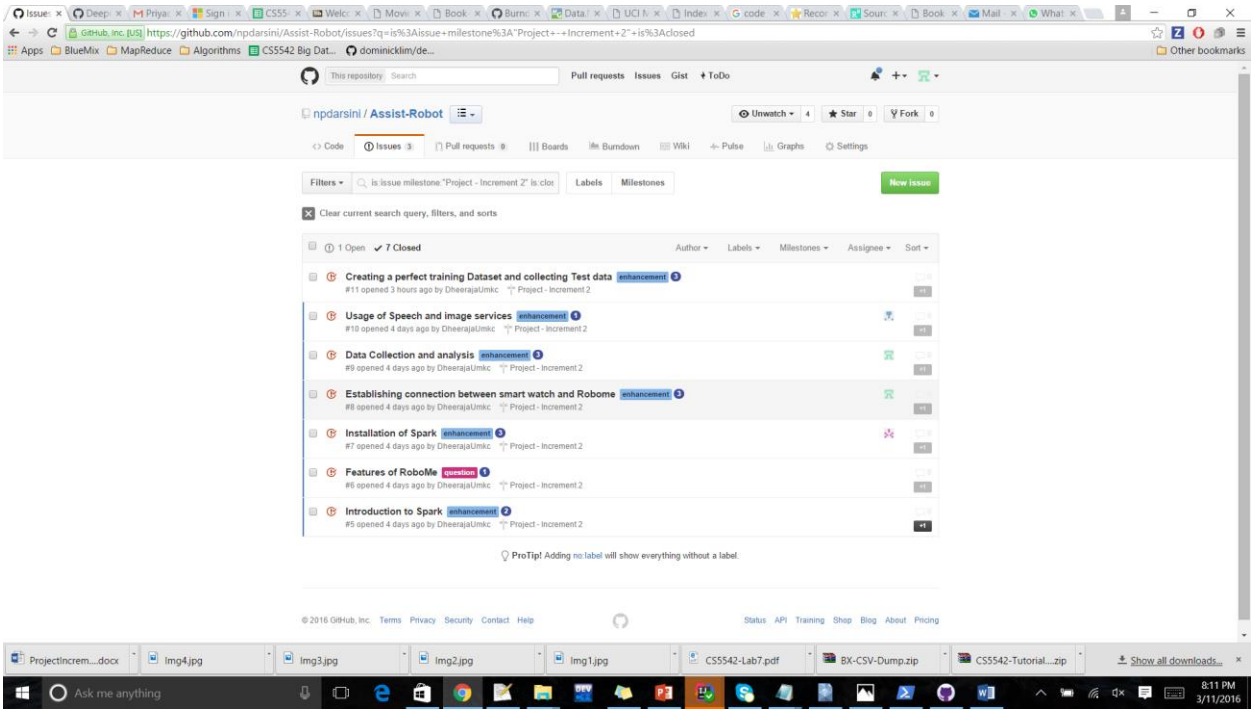
3.1 Schedule:

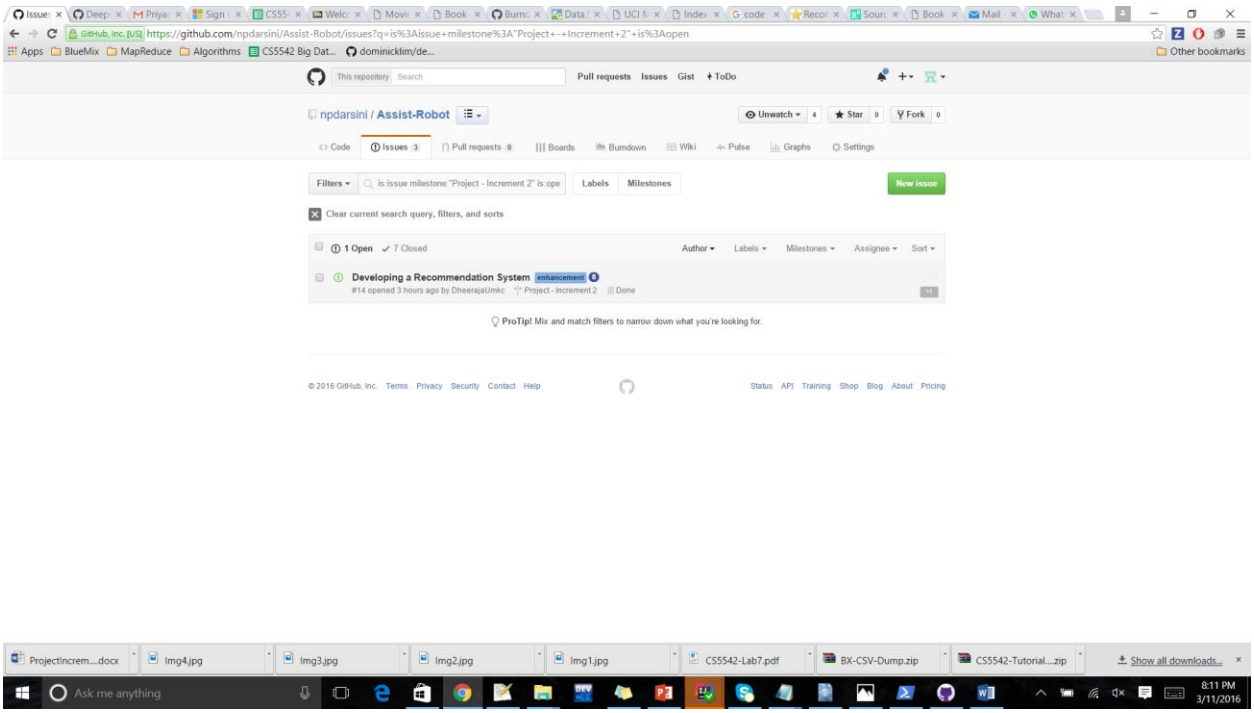
Stories: Four user stories had been created as part of Iteration 1. Here are the snapshots for the stories which are in closed and opened state.



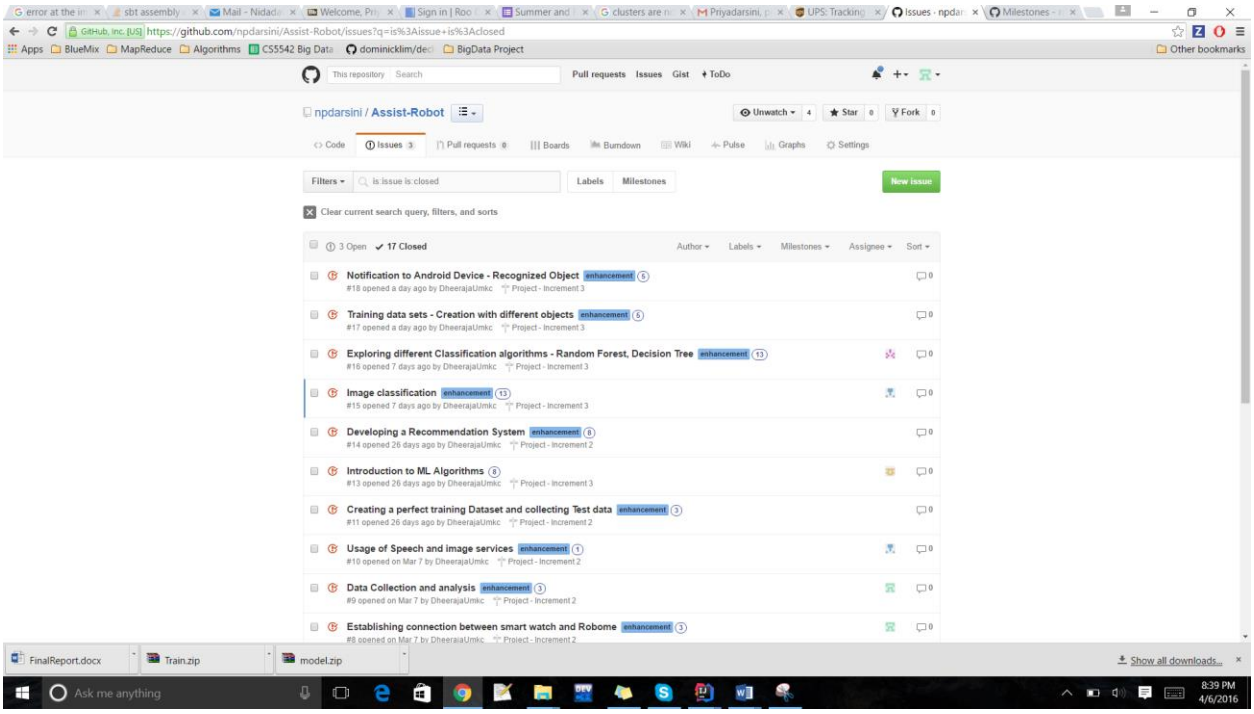


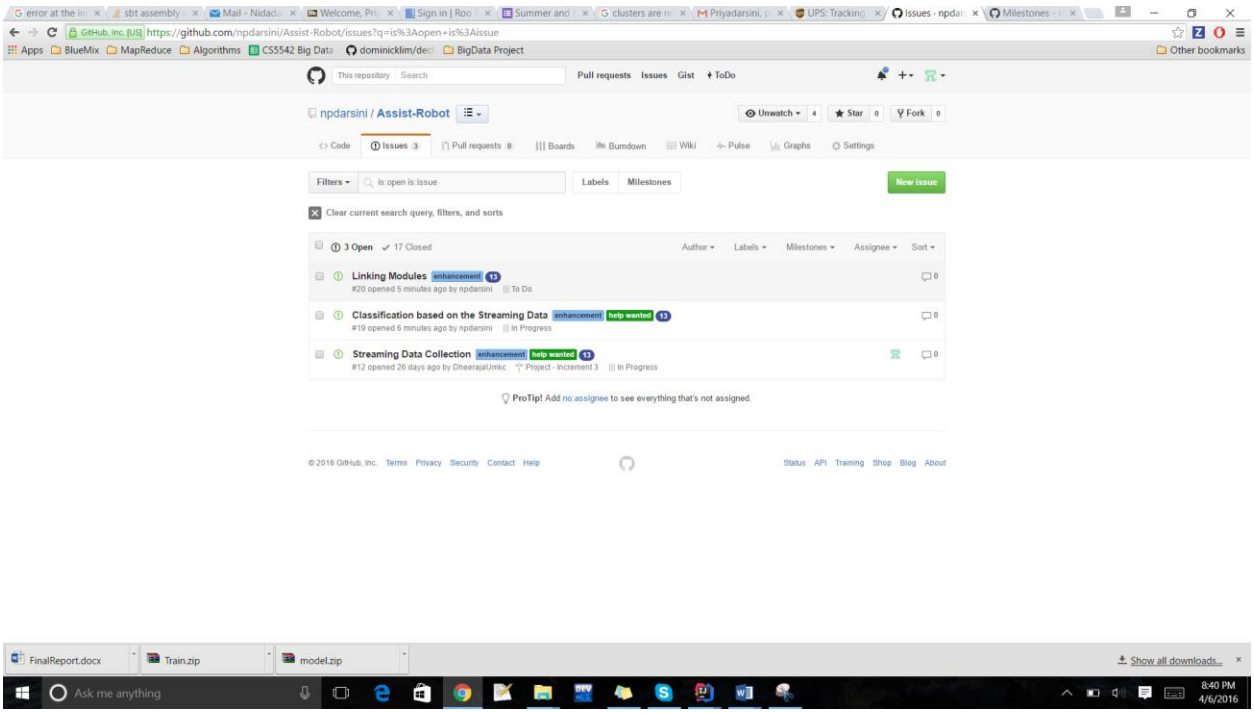
Stories: Eight user issues had been created as part of Iteration 2. Here are the snapshots for the stories which are in closed and opened state.



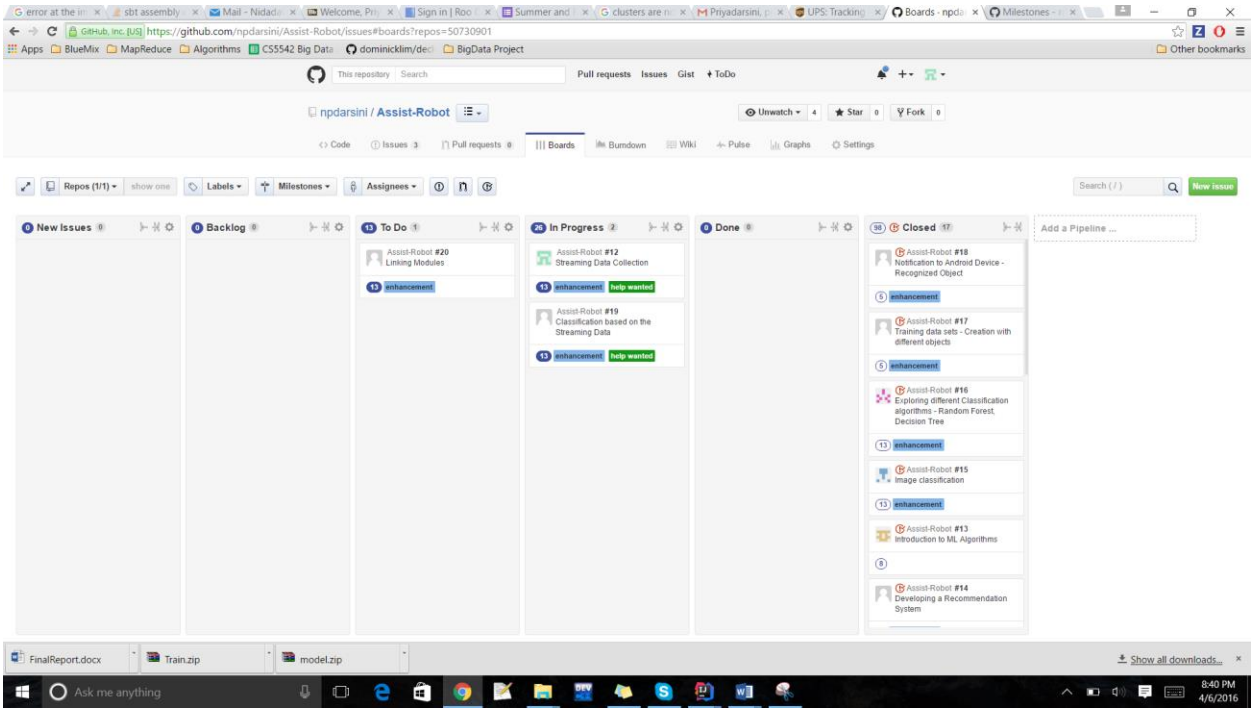


Stories: Six user issues had been created as part of Iteration 3. Here are the snapshots for the stories which are in closed and opened state.

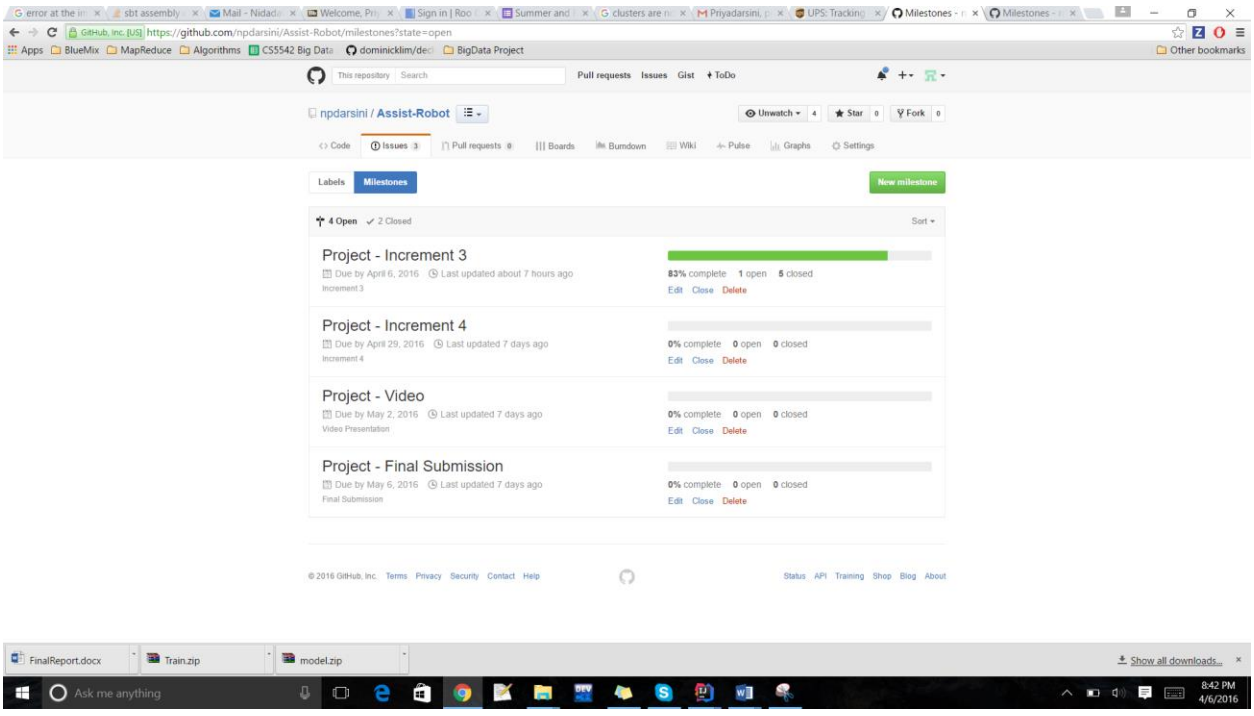




Board:

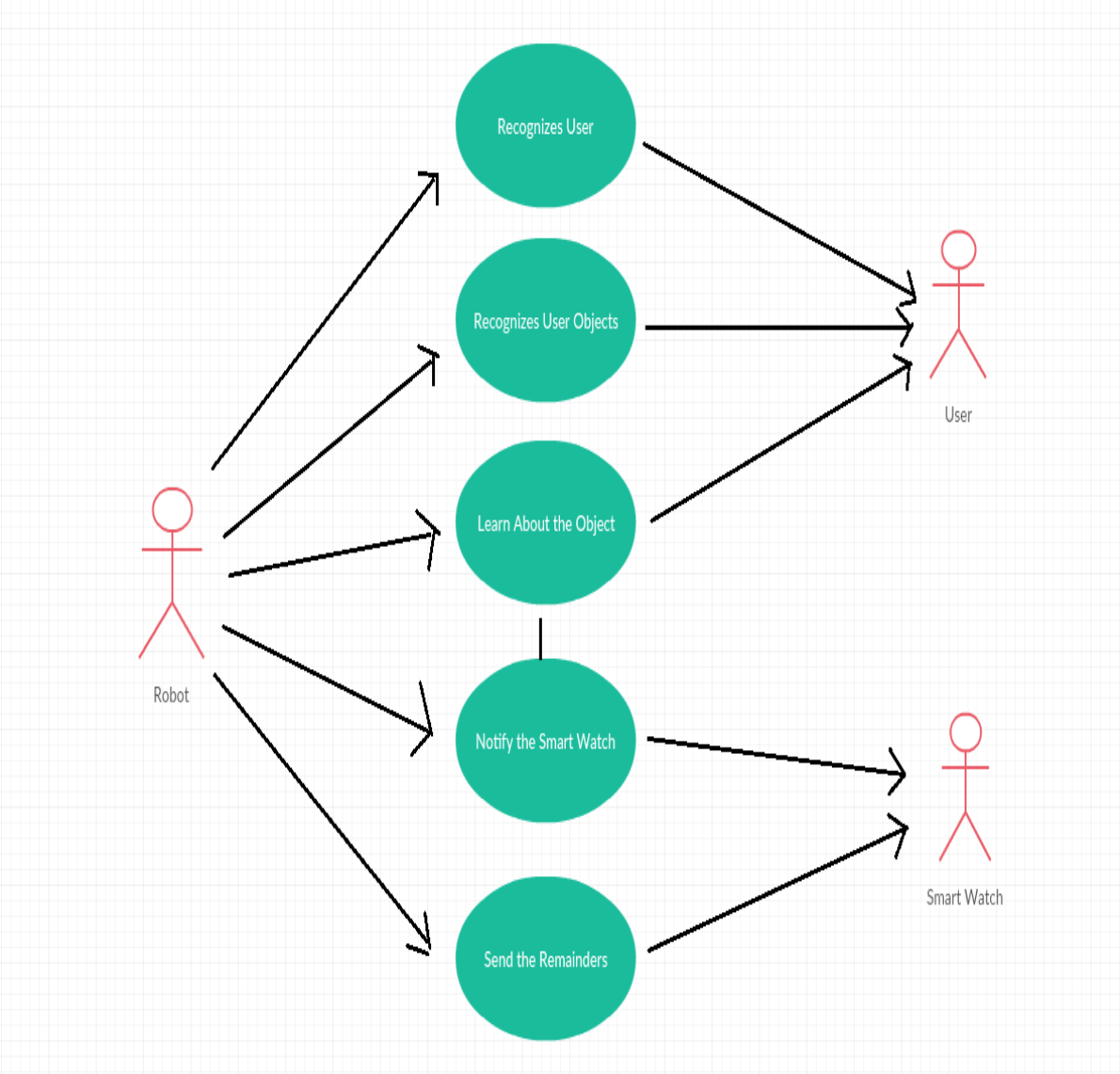


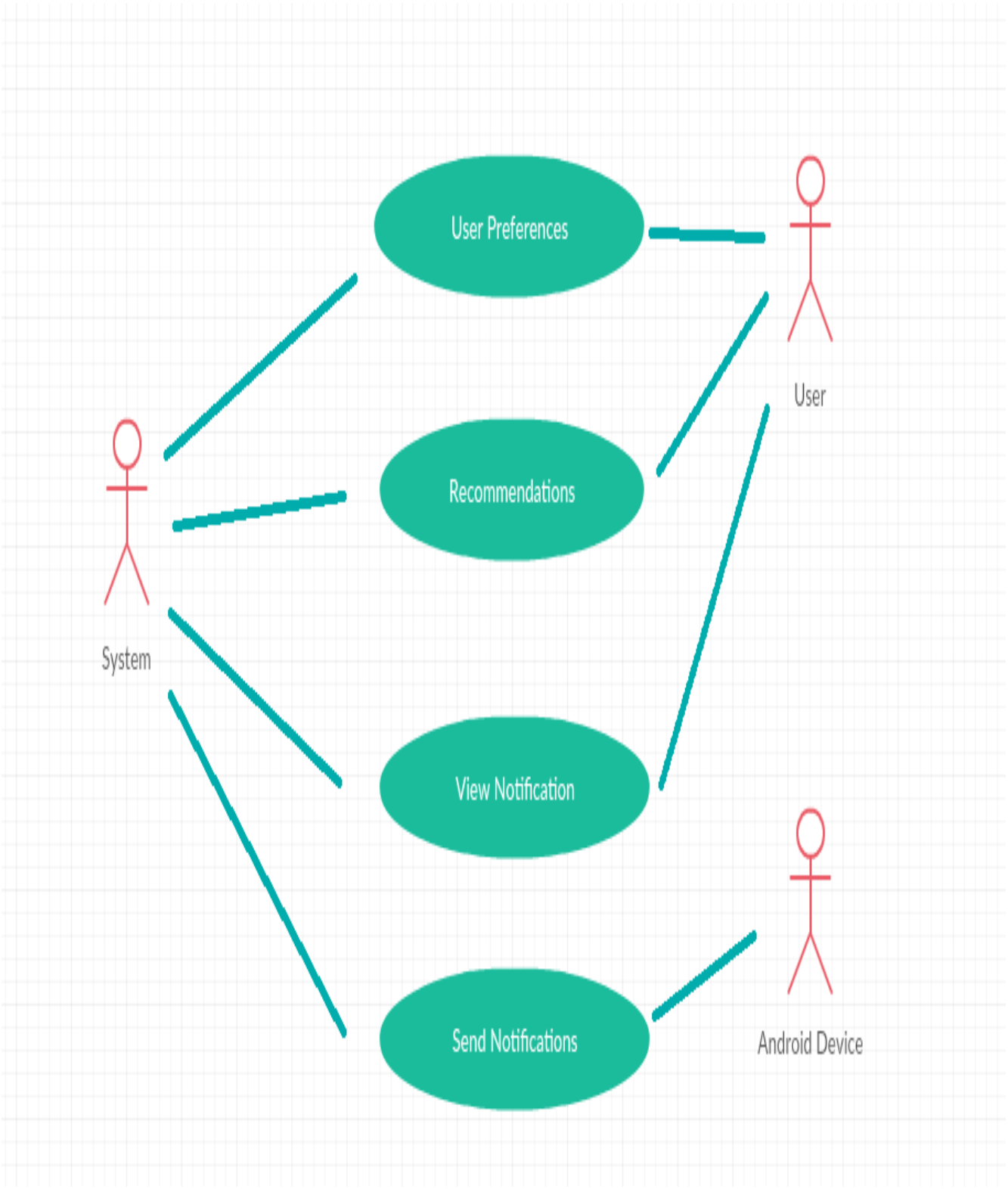
Milestones:



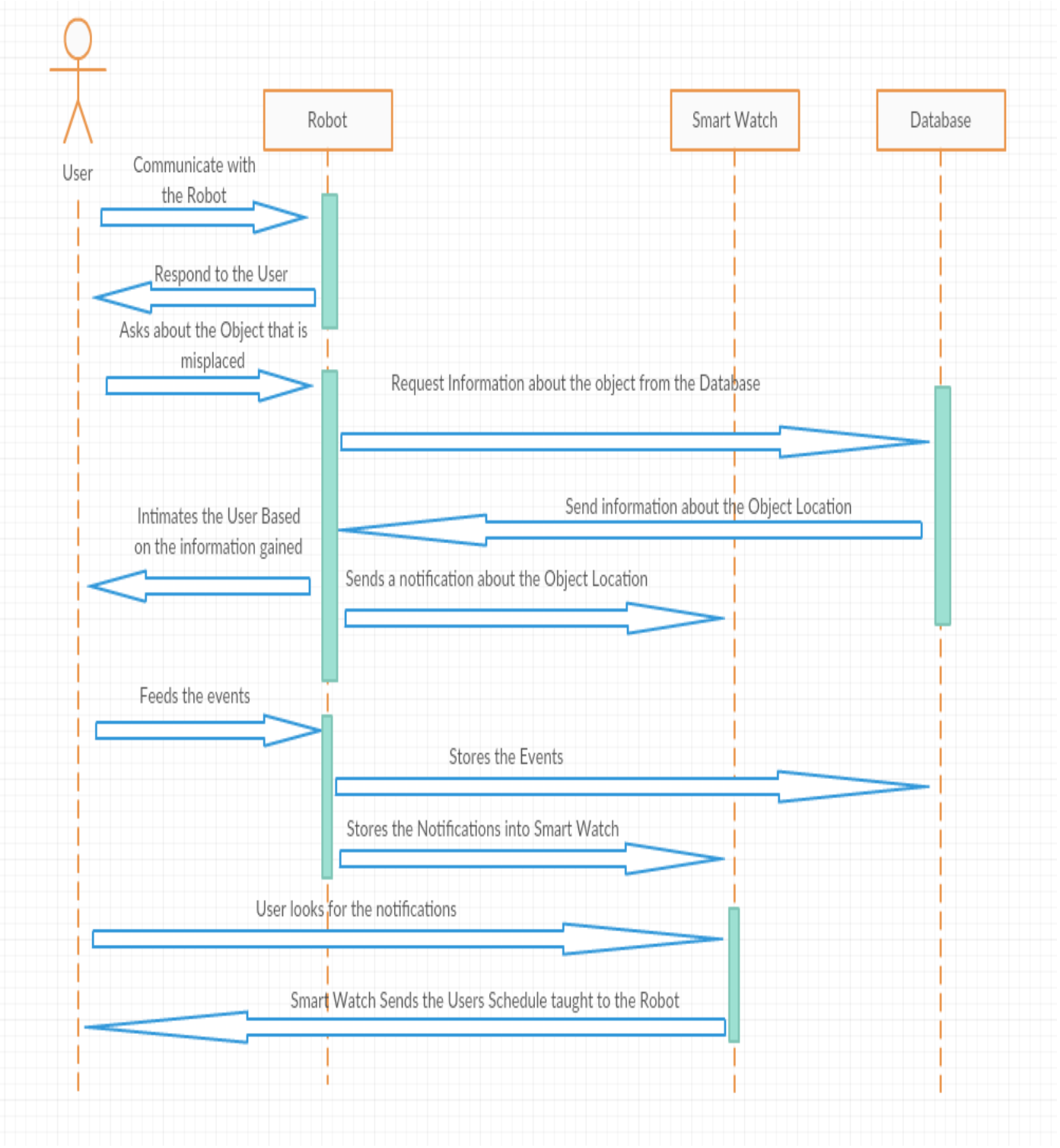
3.1.1 UML Diagrams:

Use Case Diagram

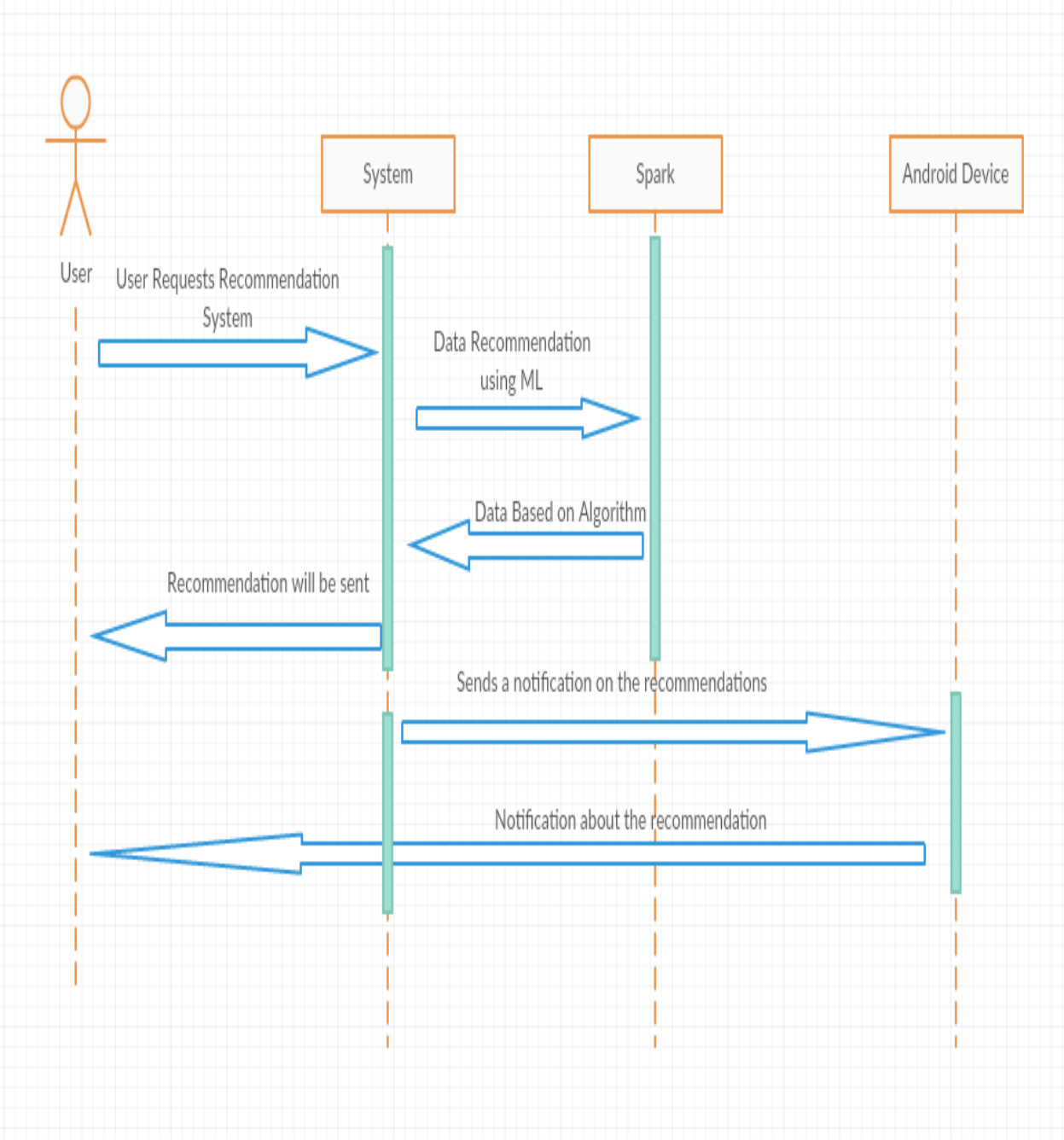



User Preferences
User
Recommendations
System
View Notification
Send Notifications
Android Device

Sequence Diagram:



Sequence Diagram for Recommendation System



3.2 Project Timelines:

Increment	Deadline
Increment 1	19 February 2015
Increment 2	11 March 2016
Increment 3	6 April 2016
Increment 4	29 April 2016
Final Submission	6 May 2016

3.2.1 Team Members:

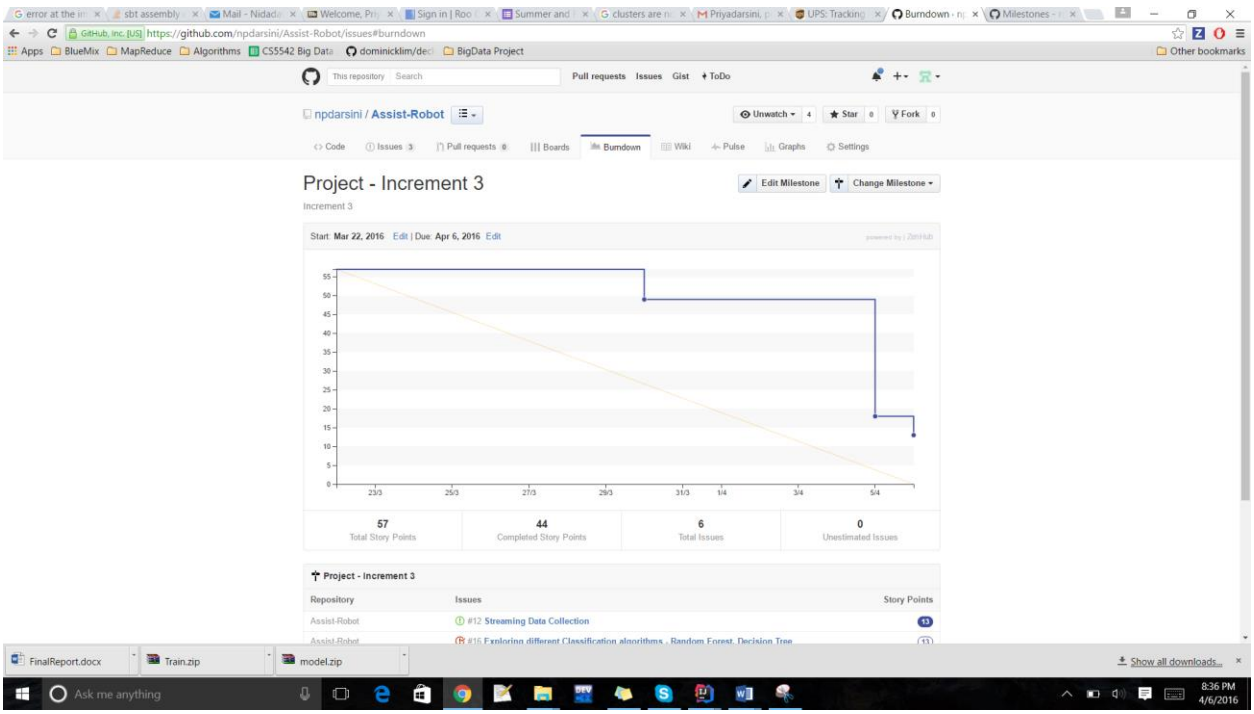
1. Priyadarsini Nidadavolu – 17
2. Deepthi Priyadarshini Penmetsa – 22
3. Dheeraja Vallabhaneni – 28
4. Tej Kumar Yentrapragada – 33

3.2.2 Tasks and Responsibilities:

- **Machine Learning and R Programming –** Deepthi Priyadarshini Penmetsa
- **Spark and Hadoop Technologies –** Priyadarsini Nidadavolu
- **Objective C and IOS Programming –** Tej Kumar Yentrapragada
- **Android Programming -** Dheeraja Vallabhaneni

3.3 Burndown Chart:

Burndown:



4. Increment Report

4.1 Incremental Explanations

4.1.1 Phase 1 -Existing API:

IBM Alchemy API

This API basically performs machine learning and natural language processing techniques. Some of its features include semantic text analysis, sentimental analysis, deep learning, face detection and reorganization, speech to text and vice versa conversions etc. In this we had used this API in order to recognize the objects that we want to teach the Robot.

Achievements upon using this API – The Robot could identify basic objects like laptop, phone, bottle etc.

4.1.2 Phase 2 - Recommendation System:

In this phase we had developed two recommendation systems which can recommend the user about the popular furniture showrooms and the famous books. In this we provided the training set with user information (uid, name, ratings etc.,), furniture information (list of showrooms, location) and the book information (name, author etc.,).

The recommended notification has been sent to the android device (smart watch/phone) using Spark-Android Socket programming techniques.

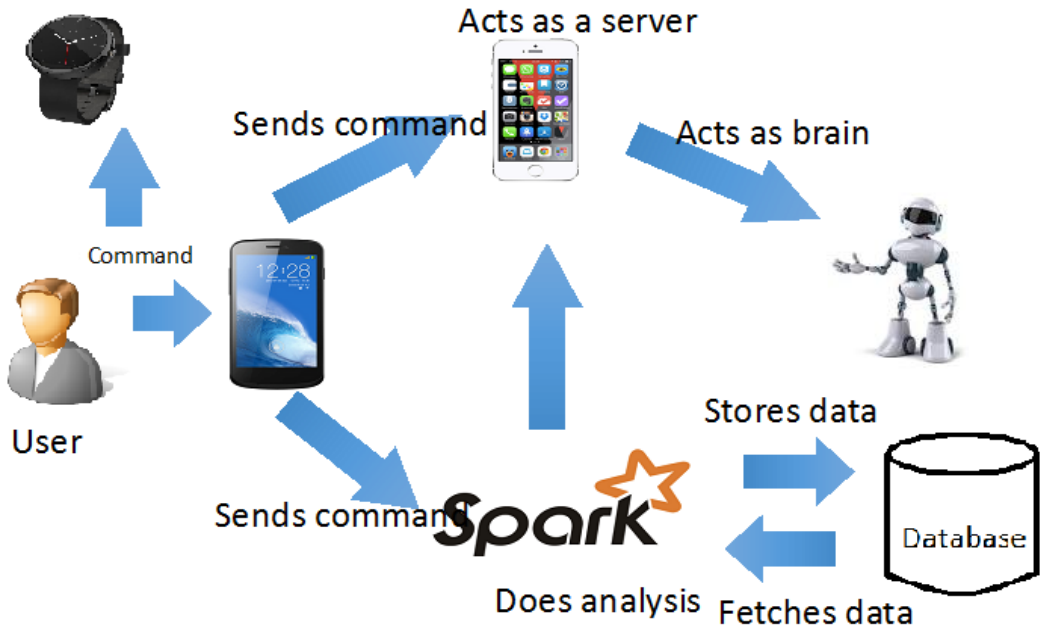
4.1.3 Phase 3 – Image Classification:

In this phase we had implemented Image Classification system using Random Forest Machine Learning Classifier Algorithm. In this we had provided the training data set which has the different kinds of objects like keys, charger, watch, spectacles, phone. Basically, we generated the key descriptors and created the clusters and histograms out of it. Based on this features, the classifier predicts the image from the testing data set that has been provided.

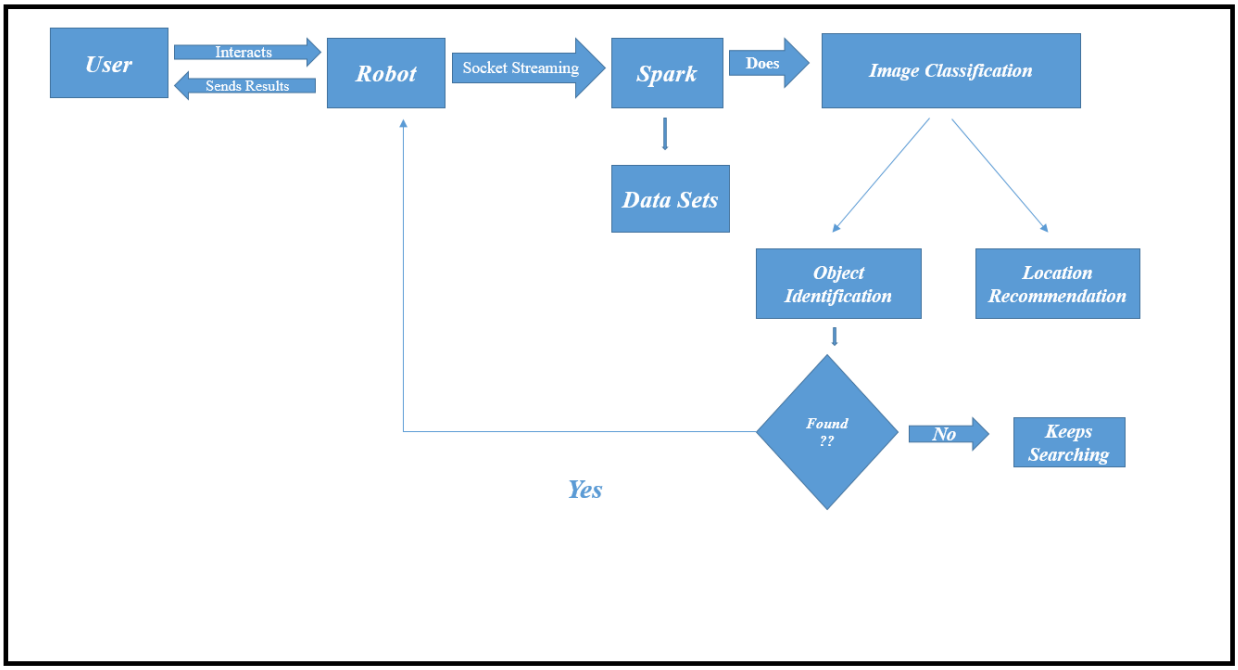
The notification about the classified image will be sent to the android device (smart watch/ phone) using Spark-Android Socket programming techniques.

4.2 Design of Features:

The architecture of our system could be like the user can give commands to the client device which is android phone. Further the Iphone which acts as a server could take commands from the android phone and passes it to the Robot. The Robot performs the necessary actions of the received command and return back to the Android Phone. It also sends the notifications to the Android Smart Watch. The Android device can also pass the command to the Spark and fetch the data from the database (MongoDB, Hadoop DB). Our system will be able to recommend the user based on the trained data sets and the notifications will be sent to the android device.


Acts as a server
Sends command
Acts as brain
Command
User
Stores data
Sends command
Spark
Database
Does analysis
Fetches data

Work Flow:


User
Interacts
Sends Results
Robot
Socket Streaming
Spark
Does
Image Classification
Data Sets
Object Identification
Location Recommendation
Found ??
No
Keeps Searching
Yes

System Features

The following are the features that were developed as part of Phase I:
We had used IBM's Alchemy API and able to make our Robot to detect the object and return the object name as a result.

The following are the features that are developed as part of Phase II:

We had used machine learning algorithms to develop a recommendation system. In this phase we had developed two recommendation systems with which the system will be able to suggest top rated books to the user based on his interests and the furniture showrooms which could be available for cheaper prices with the location. Basically, we had provided the training data sets and the user preferences which serves as a key inputs for the system. We were also able to connect our system to the android device to which the recommendations has been sent.

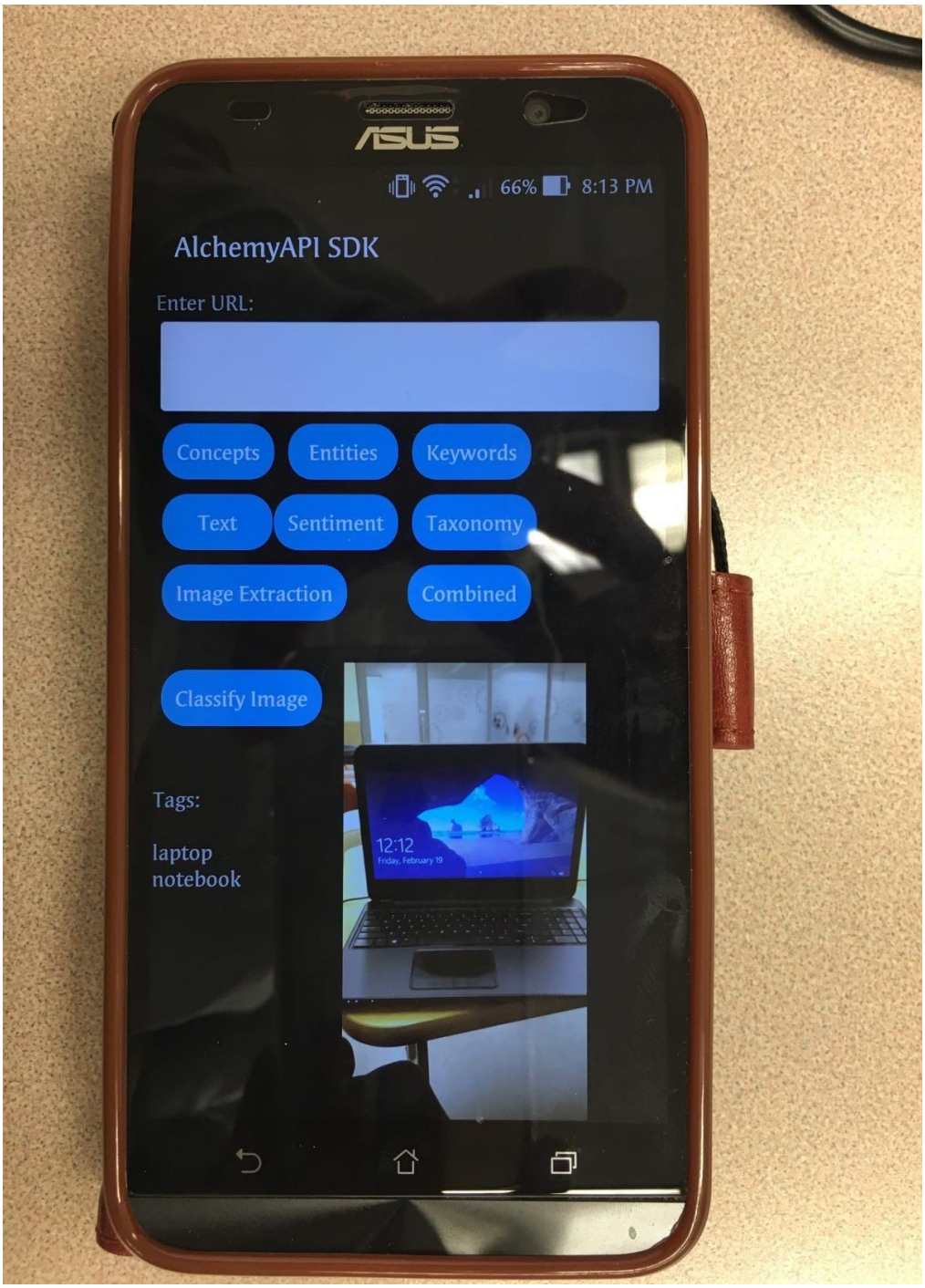
The following are the features that are developed as part of Phase III:

We had used Random Forest Classifier Algorithm to develop an Image classification system. In this phase we had provided the system with the training data set which consists the sample images of the different types of objects like keys, watch, spectacles, phone etc. We are able to create the clusters and histograms out of the provided data and was able to send a notification to the smart device about the object that has been predicted.

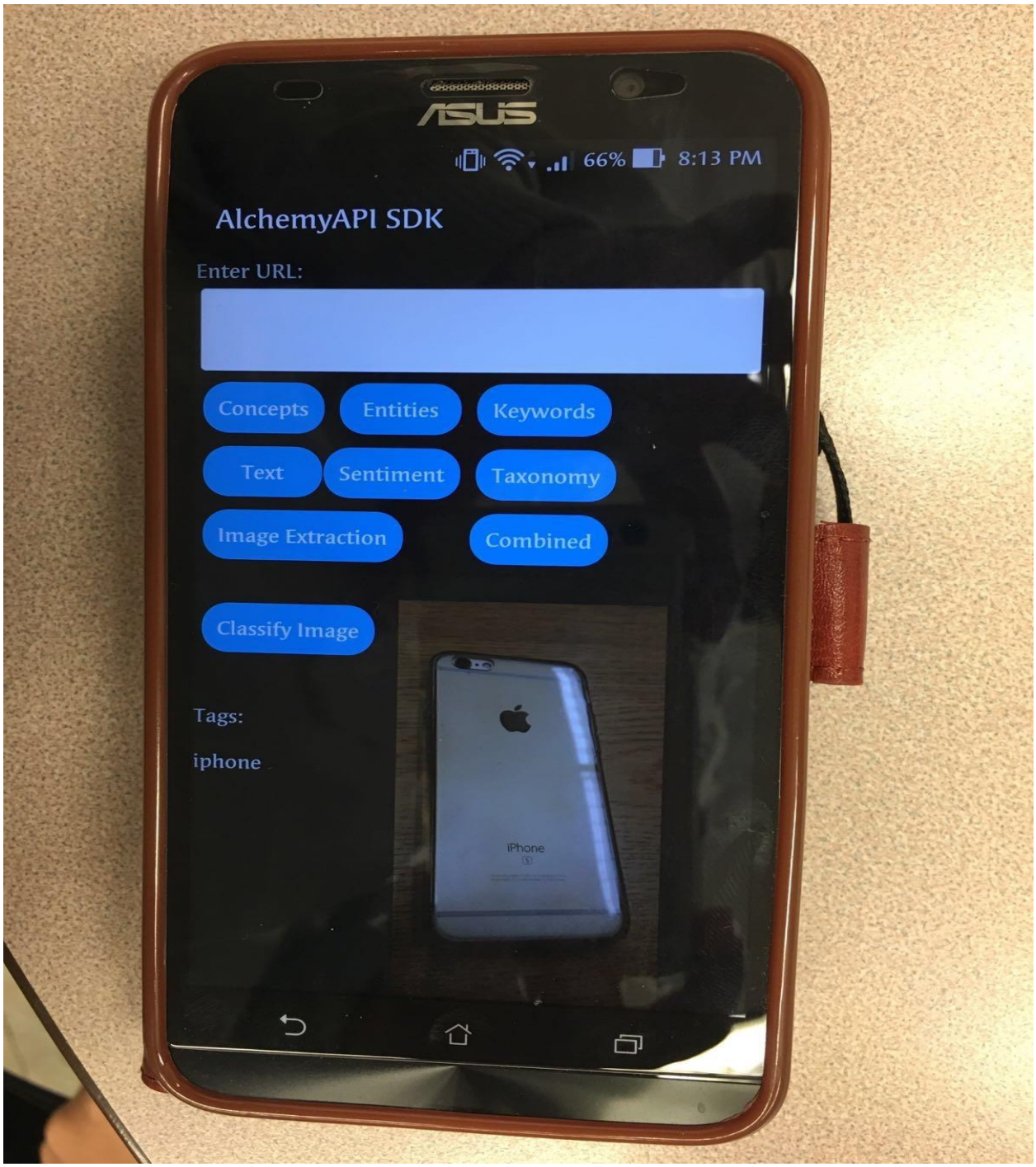
4.3 Implementation:

Mobile Client Implementation – Snapshots

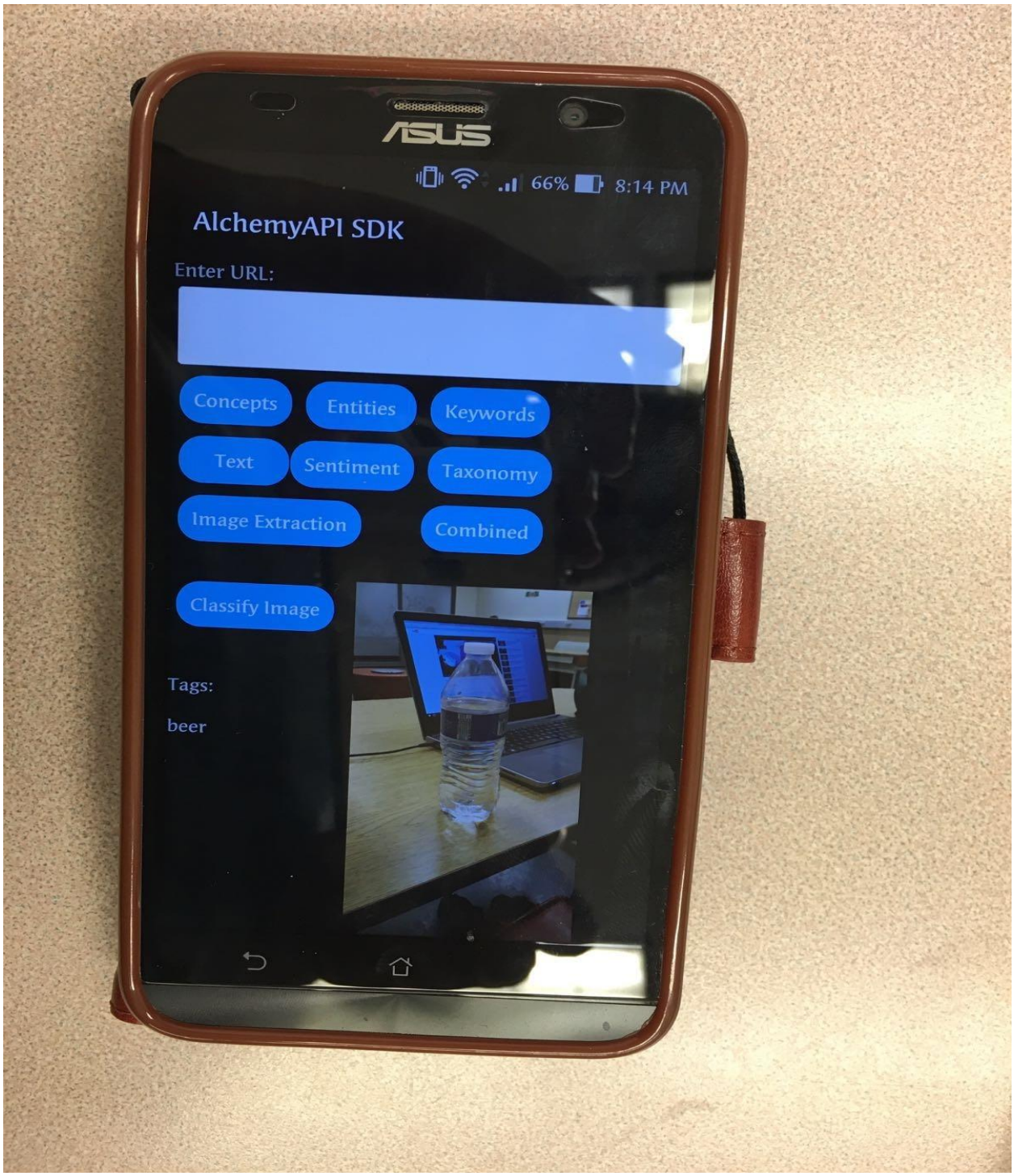
This snapshot shows us that the application is able to identify the object and names its Laptop.



This snapshot shows us that the application is able to identify the object and names it as an Iphone.



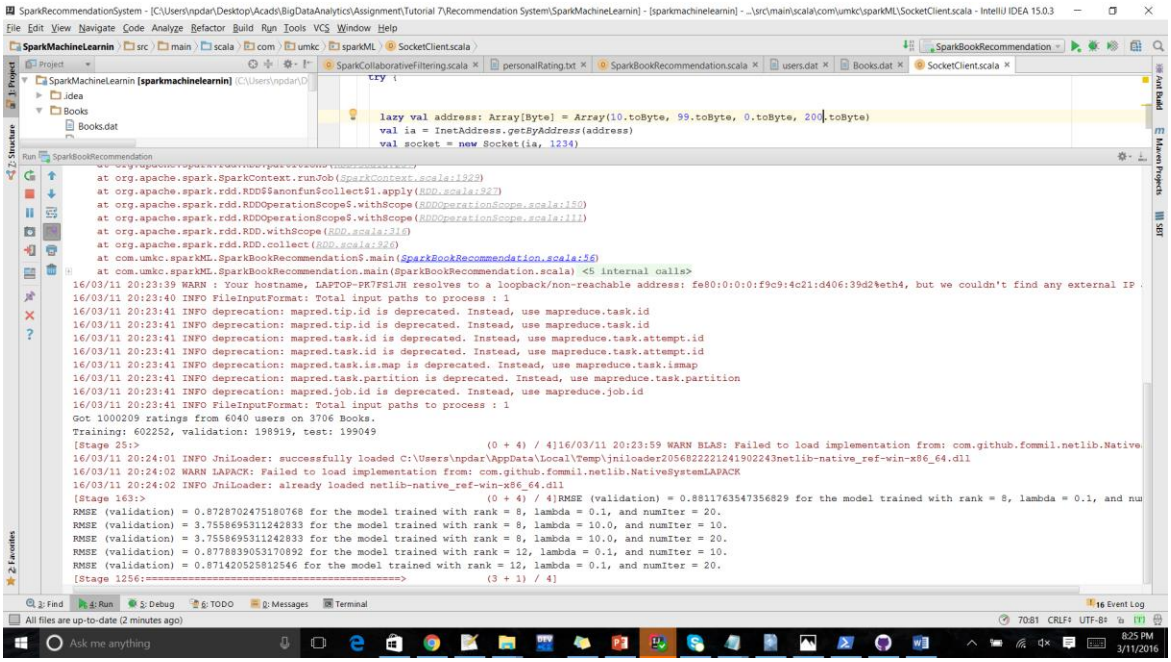
This snapshot shows us that the application is able to identify the bottle.



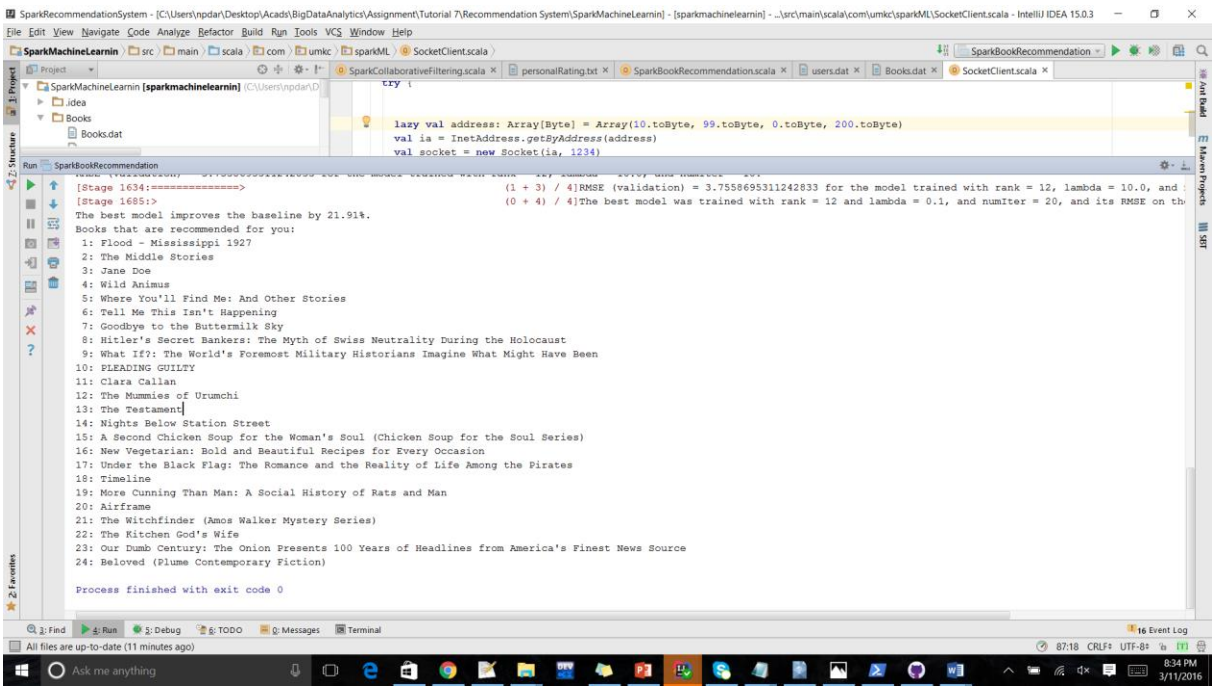
Recommendation System Snapshots:

Books Recommendation System:

Phase at which the analyzation of training data set is taking place.



Recommended Books

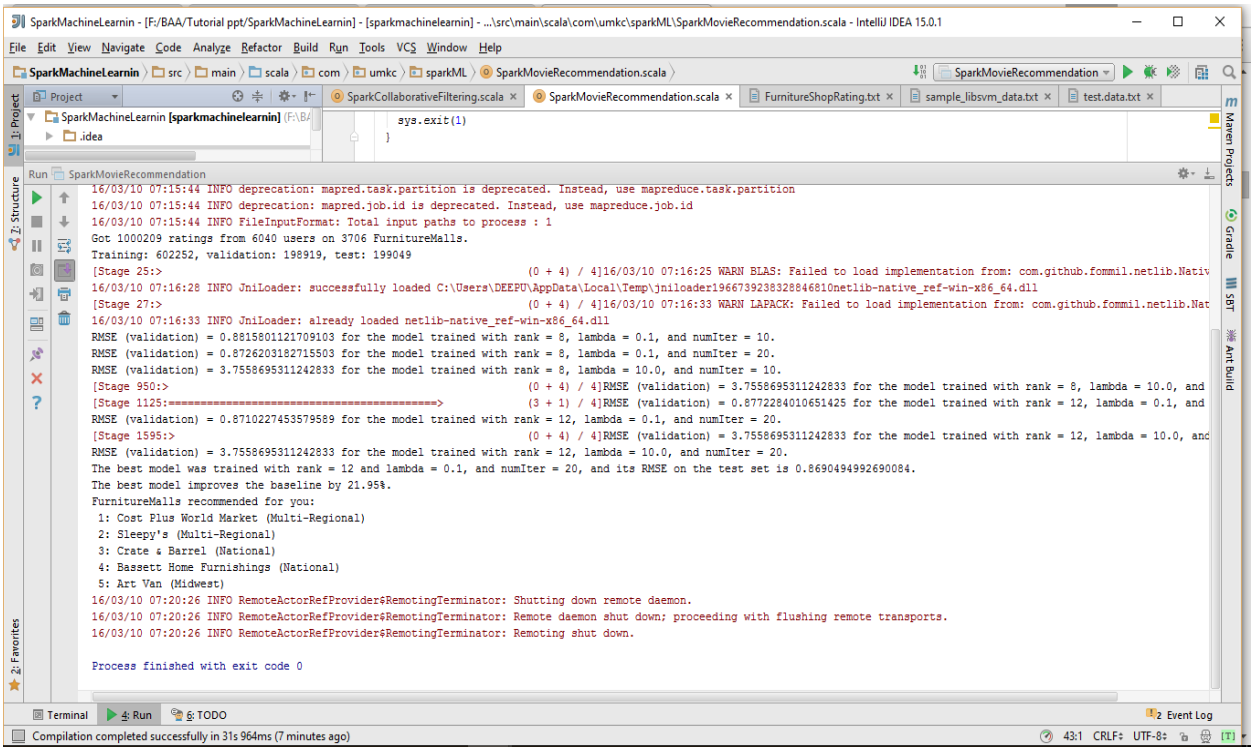


We had also sent the recommended books to the smart phone as a notification:

Furniture Malls Recommendation System

```
Got 1000209 ratings from 6040 users on 3706 FurnitureMalls.
Training: 602252, validation: 198919, test: 199049
[Stage 25:>                                                         (0 + 4) / 4]16/03/10 07:16:25 WARN BLAS: Failed to load implementation from: com.github.fommil.netlib.Nativ
16/03/10 07:16:28 INFO JniLoader: successfully loaded C:\Users\DEEPU\AppData\Local\Temp\jniloader1966739238328846810netlib-native_ref-win-x86_64.dll
[Stage 27:>                                                         (0 + 4) / 4]16/03/10 07:16:33 WARN LAPACK: Failed to load implementation from: com.github.fommil.netlib.Nat
16/03/10 07:16:33 INFO JniLoader: already loaded netlib-native_ref-win-x86_64.dll
RMSE (validation) = 0.8815801121709103 for the model trained with rank = 8, lambda = 0.1, and numIter = 10.
RMSE (validation) = 0.8726203182715503 for the model trained with rank = 8, lambda = 0.1, and numIter = 20.
RMSE (validation) = 3.7558695311242833 for the model trained with rank = 8, lambda = 10.0, and numIter = 10.
[Stage 950:>                                                        (0 + 4) / 4]RMSE (validation) = 3.7558695311242833 for the model trained with rank = 8, lambda = 10.0, and
[Stage 1125:============================================>            (3 + 1) / 4]RMSE (validation) = 0.8772284010651425 for the model trained with rank = 12, lambda = 0.1, and
RMSE (validation) = 0.8710227453579589 for the model trained with rank = 12, lambda = 0.1, and numIter = 20.
[Stage 1595:>                                                       (0 + 4) / 4]RMSE (validation) = 3.7558695311242833 for the model trained with rank = 12, lambda = 10.0, and
RMSE (validation) = 3.7558695311242833 for the model trained with rank = 12, lambda = 10.0, and numIter = 20.
The best model was trained with rank = 12 and lambda = 0.1, and numIter = 20, and its RMSE on the test set is 0.8690494992690084.
The best model improves the baseline by 21.95%.
```

This Screenshot shows the Furniture Malls recommended to you:



The notification has been sent to the android mobile which shows the recommended furniture list.

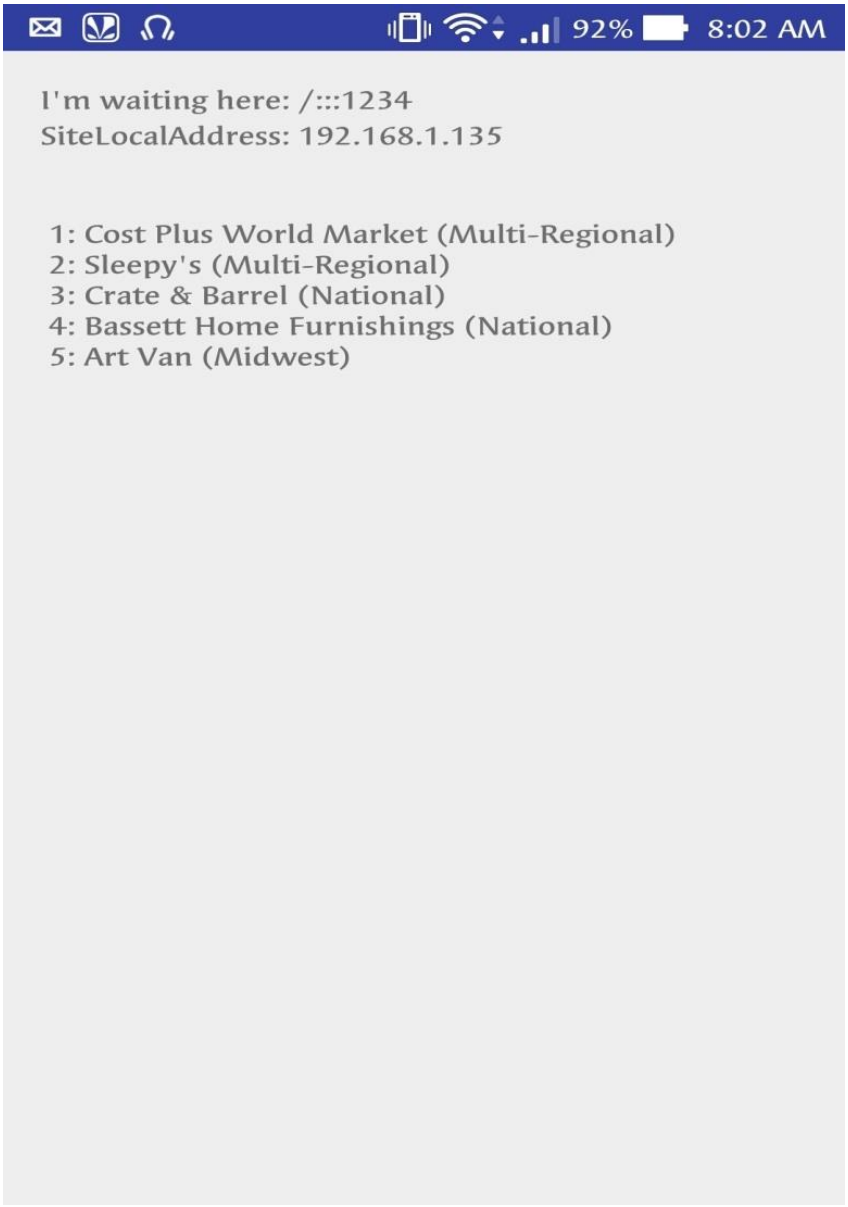
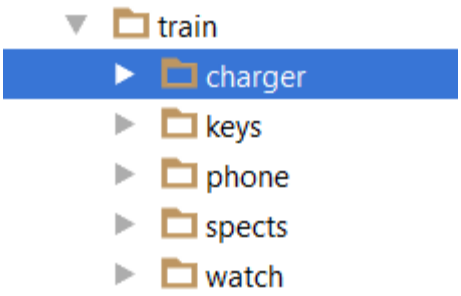


Image Classification

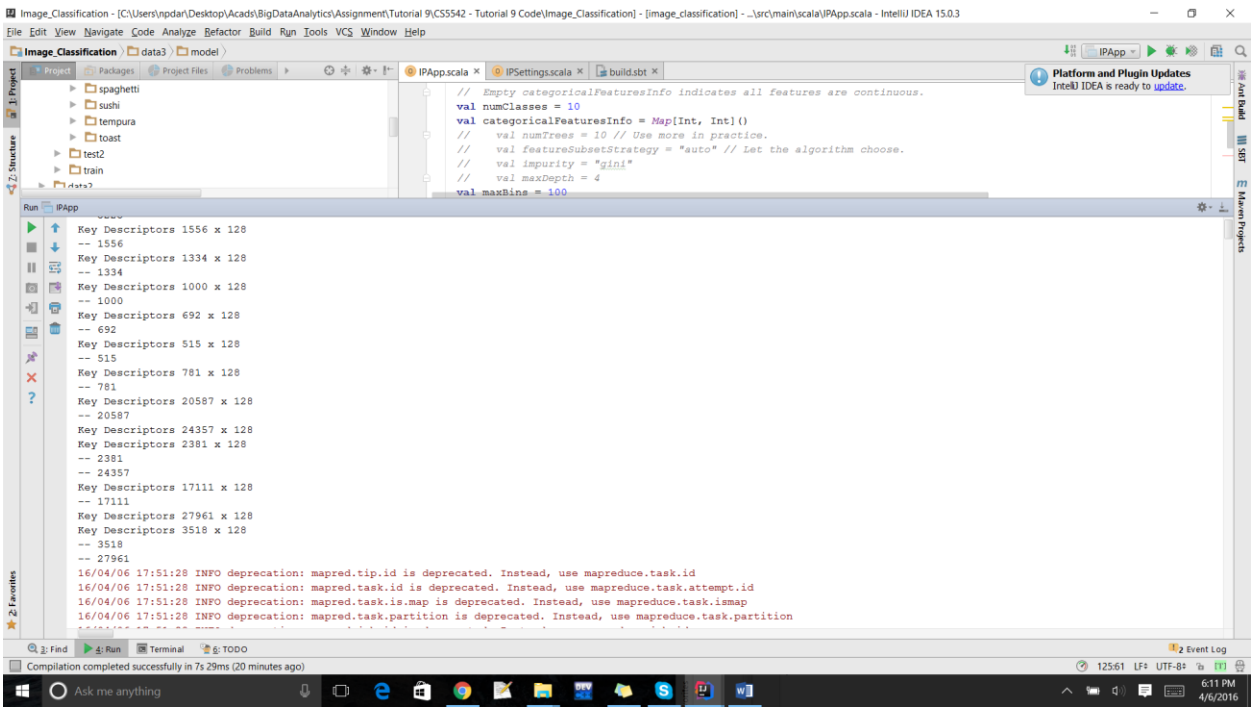
The Training dataset is full with images of objects the user want to identify which were got misplaced. And the test dataset is the streaming images which are captured by the robot while trying to identify the misplaced object. So when the robot finds the image, it classifies the image and notifies about the object to the users device.

Screenshots of the image classification:

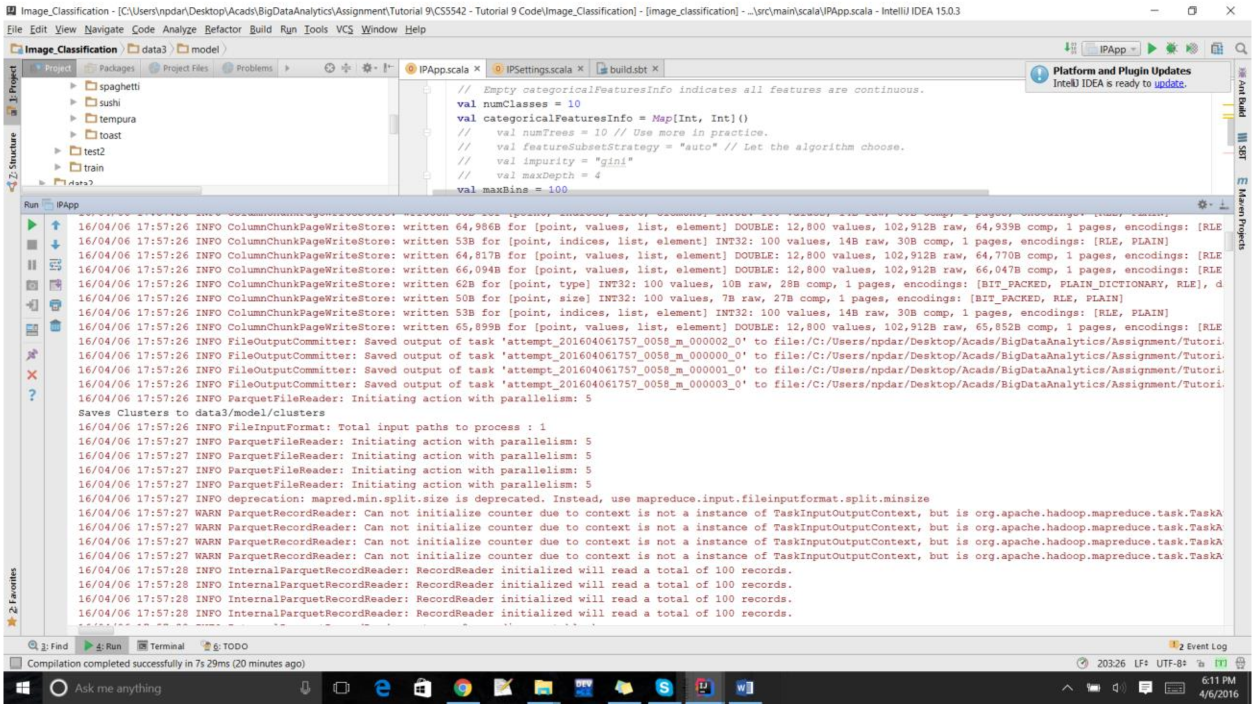
Train data:



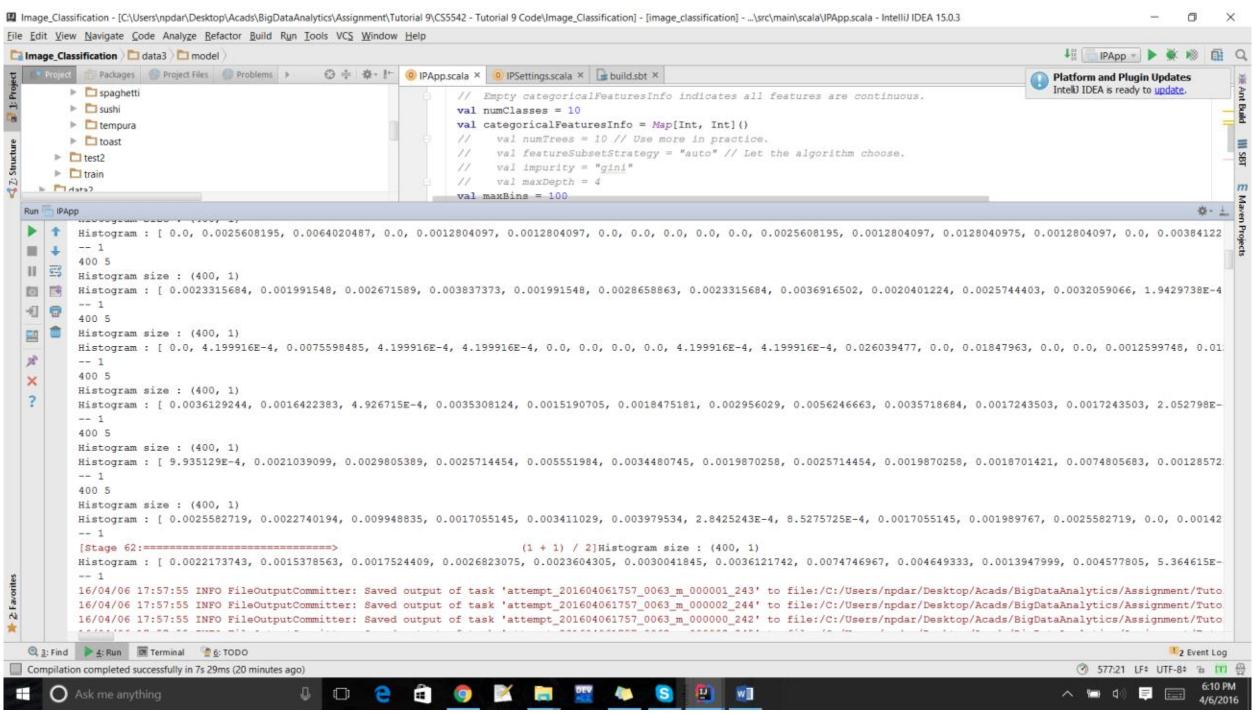
Identifying Key descriptors from Training dataset



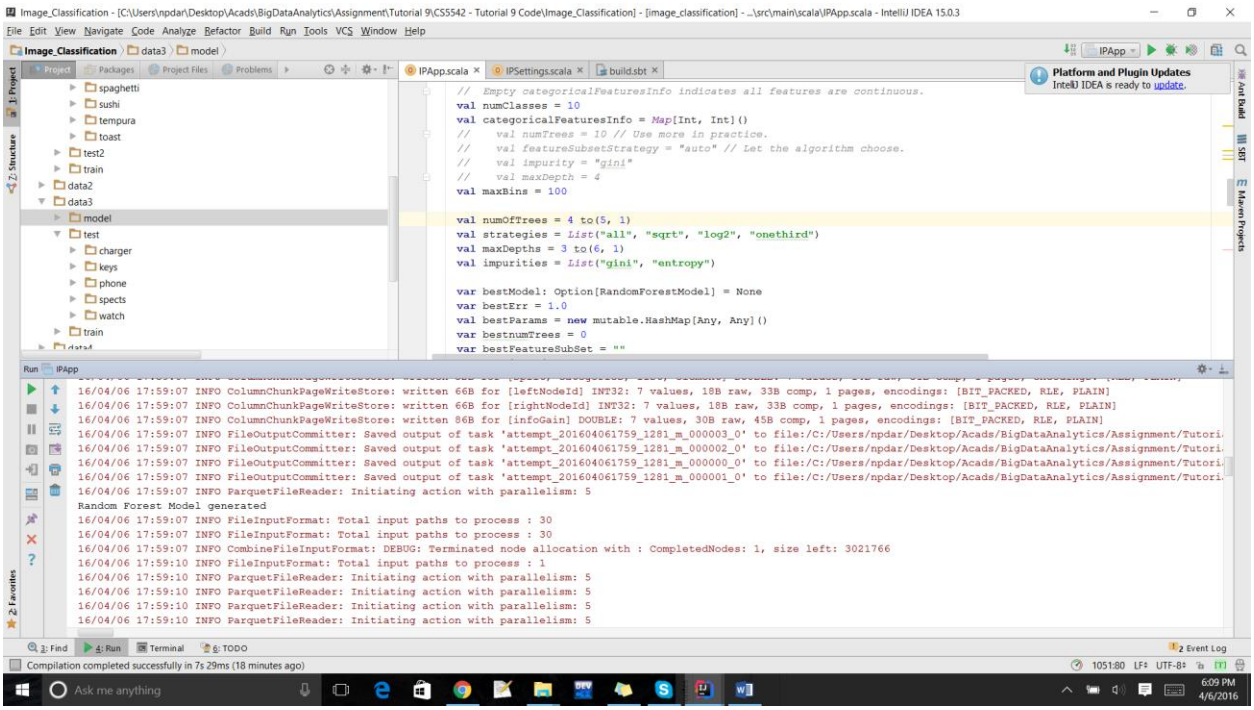
Cluster formation:

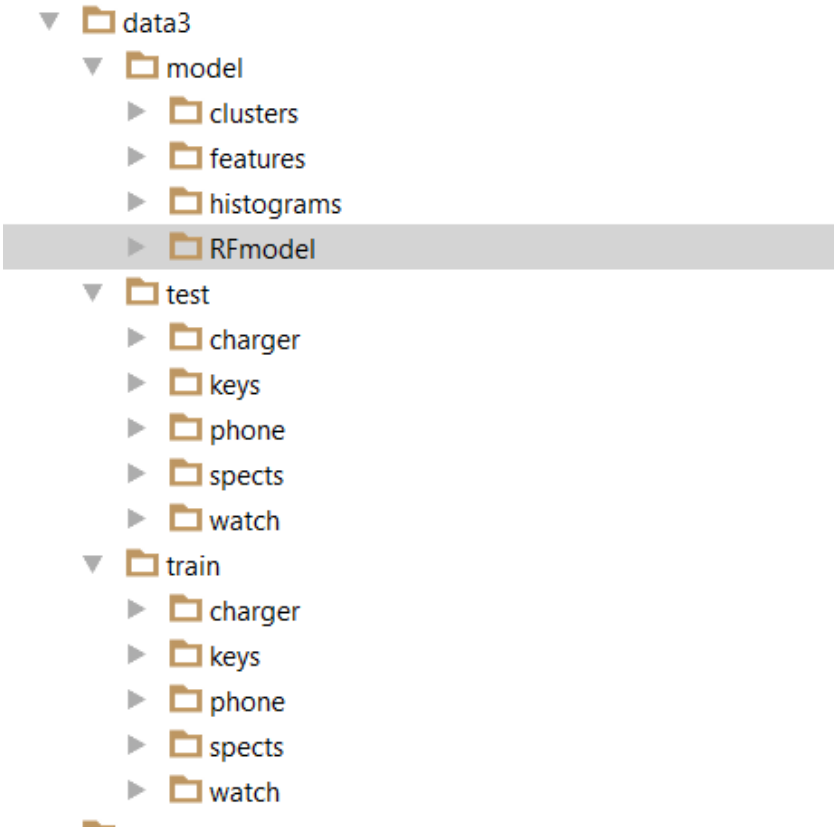


Histogram generation based on size specified:

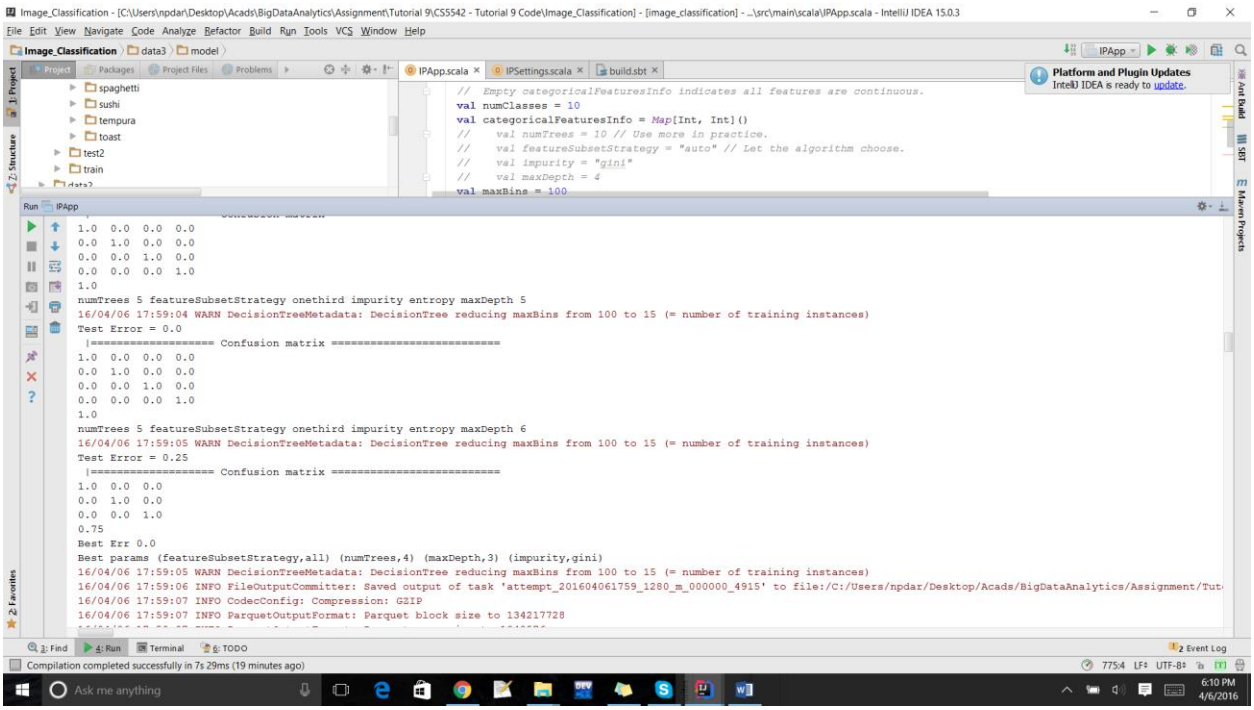


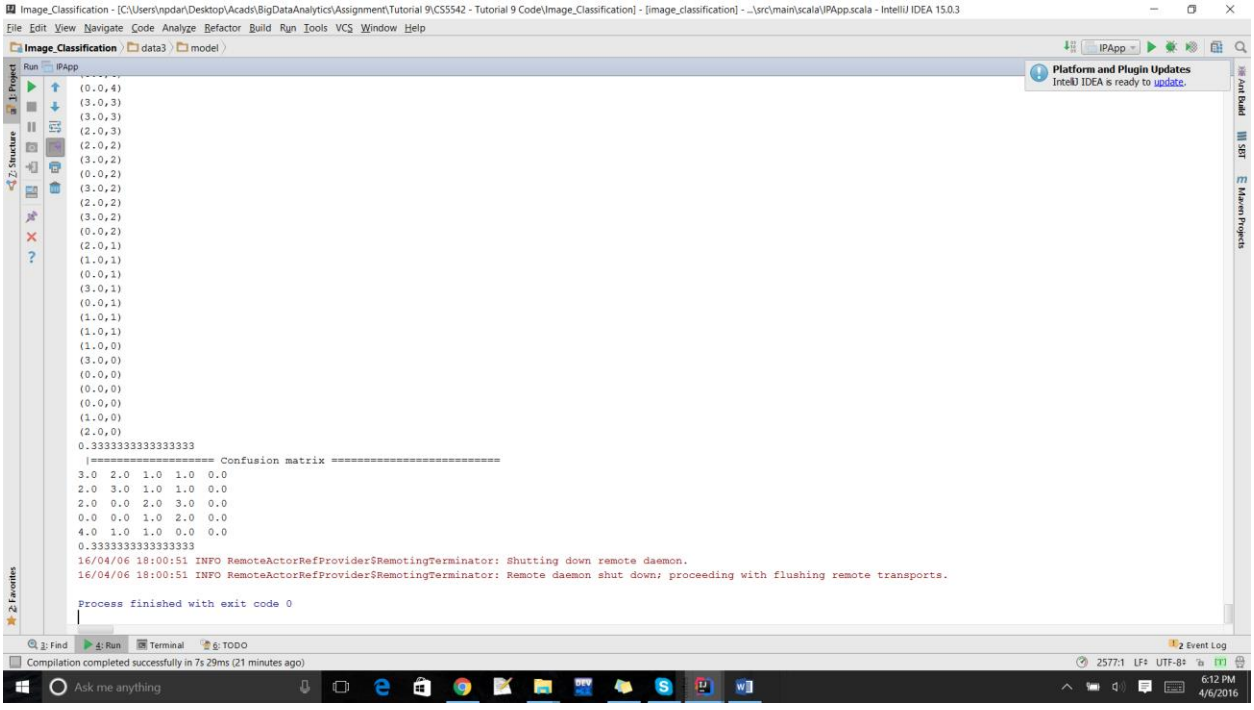
Model has been created based on the **Random Forest Classifier** Algorithm



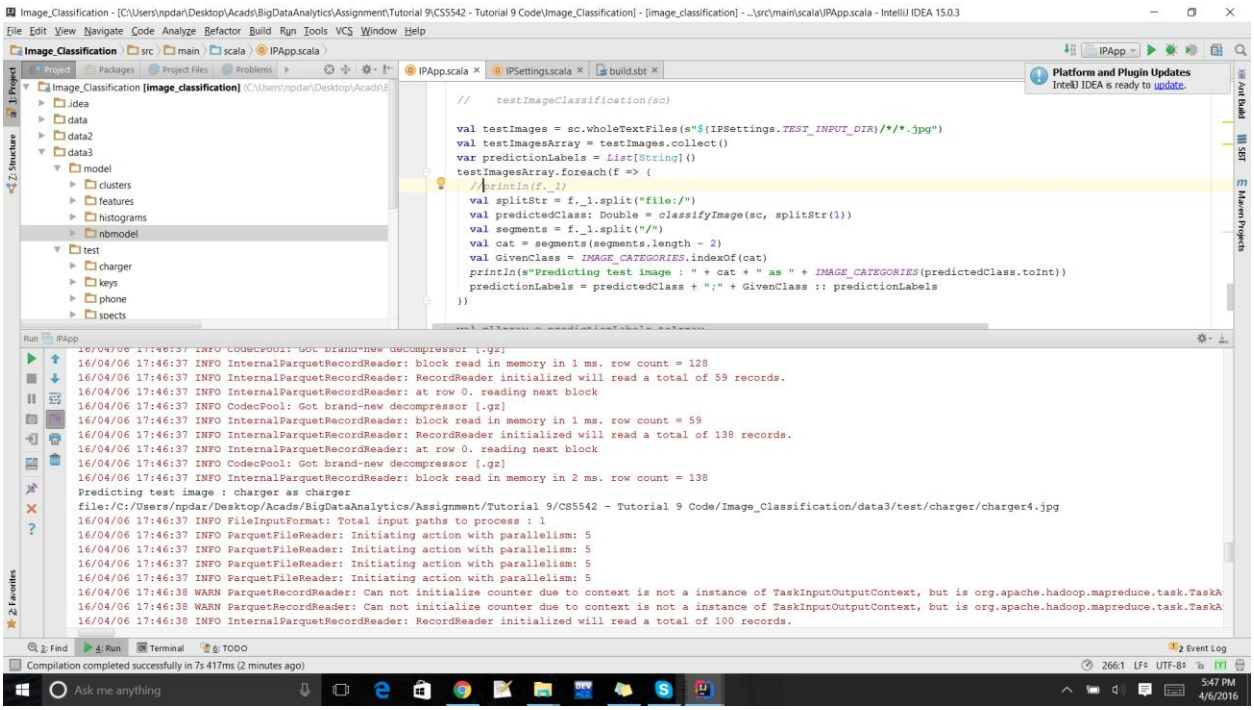


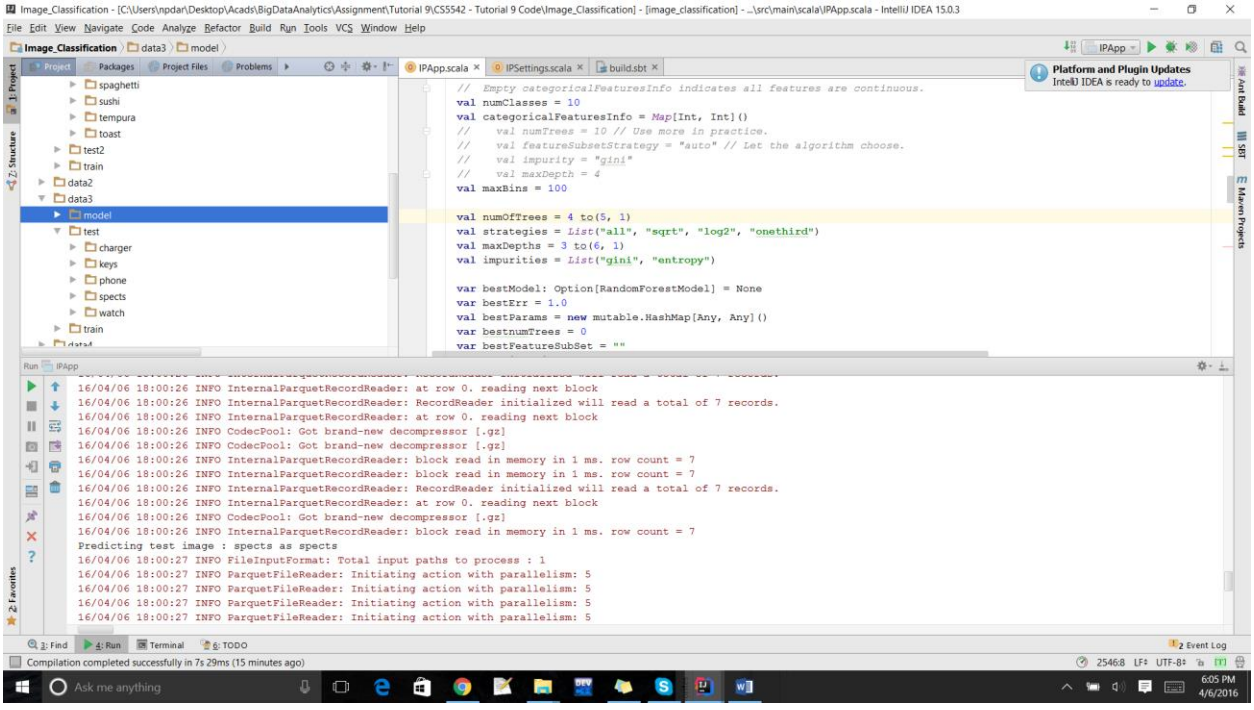
Confusion Matrix:

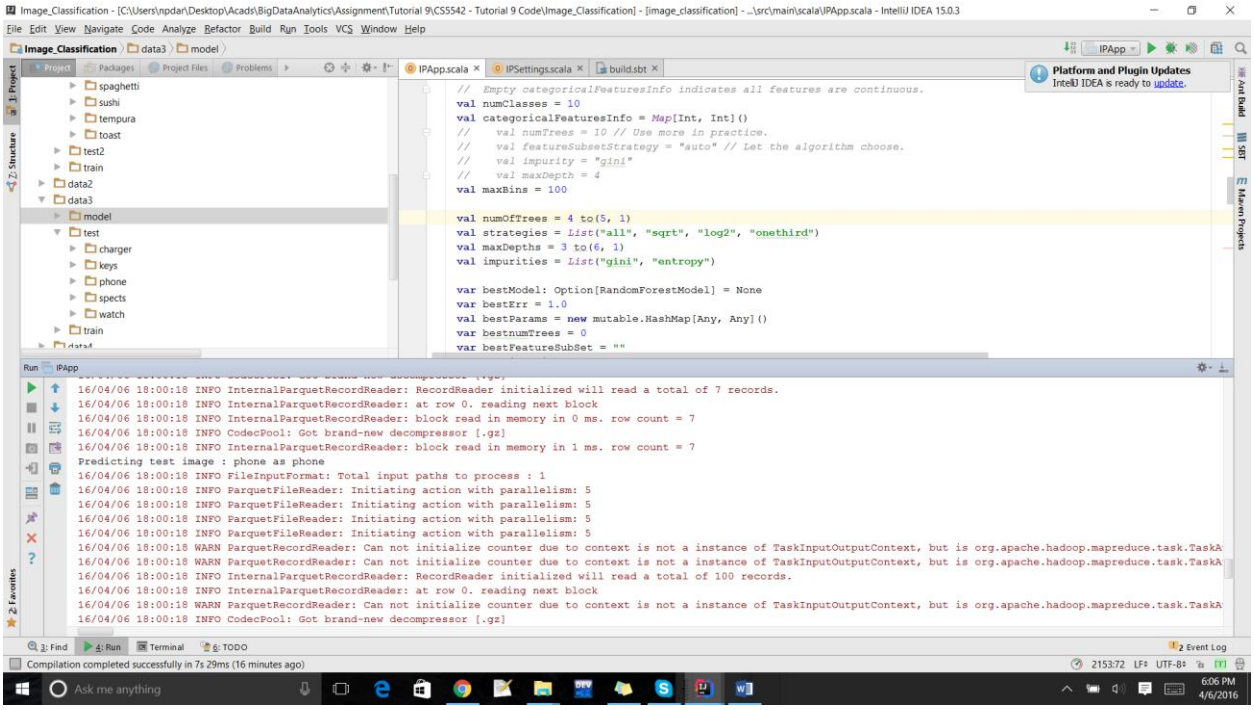


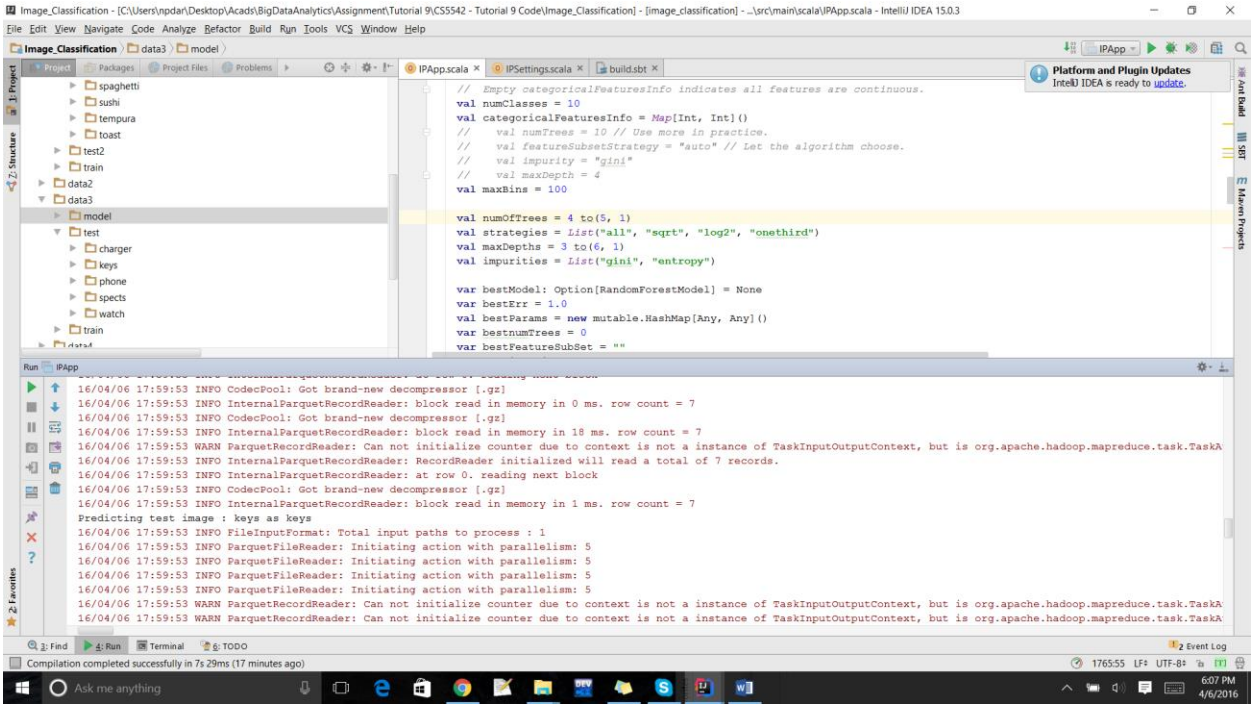


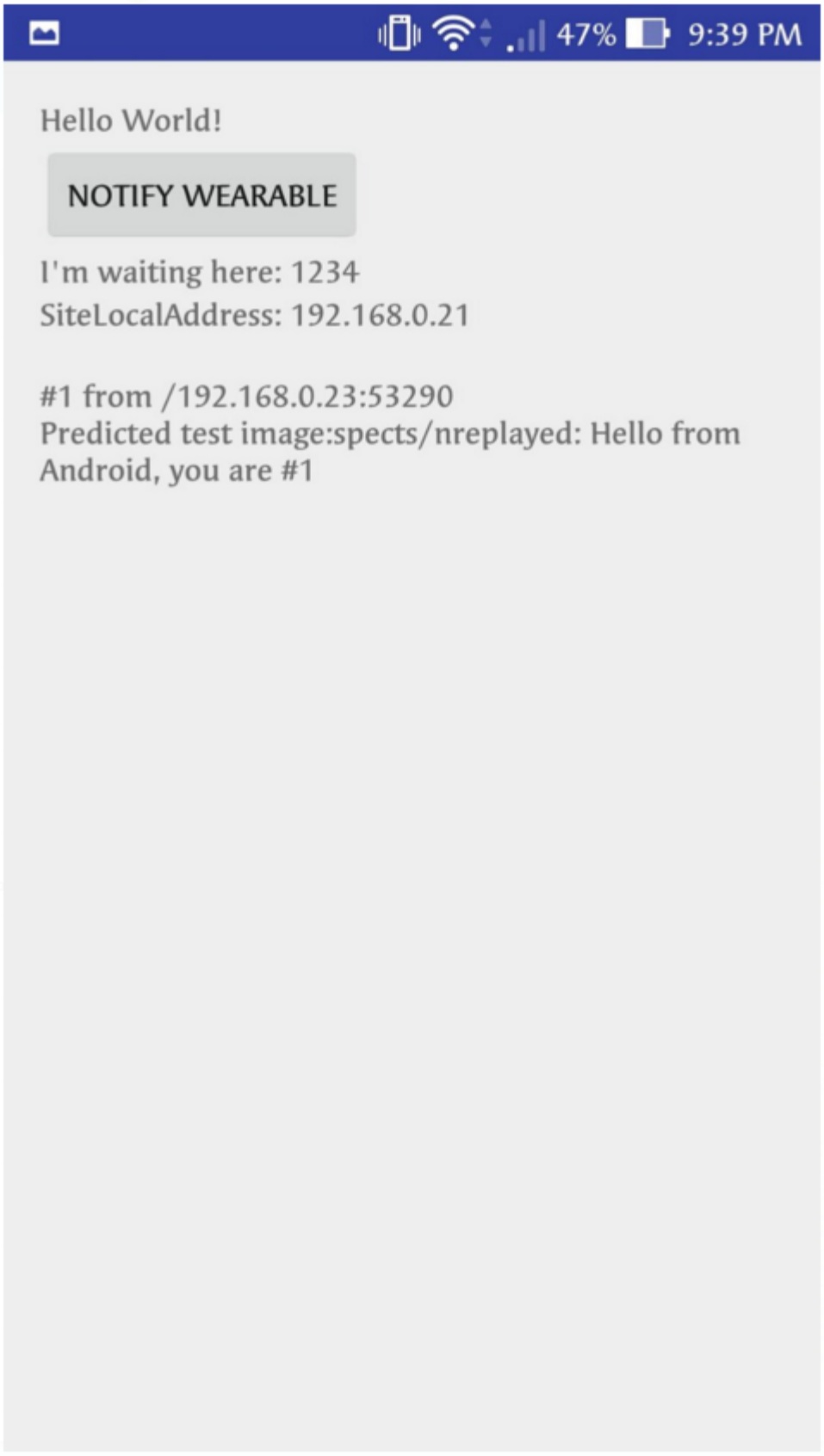
Predicted Results Snapshots from the testing dataset

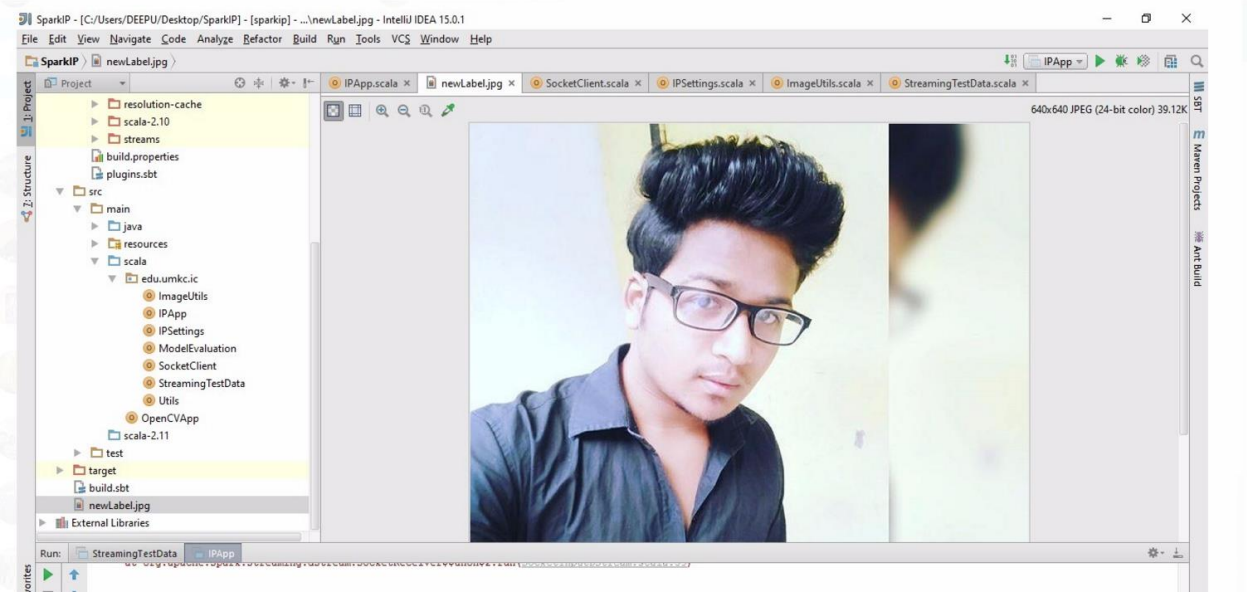





Image_Classification - [C:\Users\npdar\Desktop\Acads\BigDataAnalytics\Assignment\Tutorial 9\CS5542 - Tutorial 9 Code\Image_Classification] - [image_classification] - ...\src\main\scala\IPApp.scala - IntelliJ IDEA 15.0.3
File Edit View Navigate Code Analyze Refactor Build Run Tools VCS Window Help
Image_Classification data3 model
IPApp.scala IPSettings.scala build.sbt
Platform and Plugin Updates
IntelliJ IDEA is ready to update.
// Empty categoricalFeaturesInfo indicates all features are continuous.
val numClasses = 10
val categoricalFeaturesInfo = Map[Int, Int]()
// val numTrees = 10 // Use more in practice.
// val featureSubsetStrategy = "auto" // Let the algorithm choose.
// val impurity = "gini"
// val maxDepth = 4
val maxBins = 100
val numOfTrees = 4 to(5, 1)
val strategies = List("all", "sqrt", "log2", "onethird")
val maxDepths = 3 to(6, 1)
val impurities = List("gini", "entropy")
var bestModel: Option[RandomForestModel] = None
var bestErr = 1.0
var bestParams = new mutable.HashMap[Any, Any]()
var bestnumTrees = 0
var bestFeatureSubSet = ""
Run IPApp
16/04/06 18:00:18 INFO InternalParquetRecordReader: RecordReader initialized will read a total of 7 records.
16/04/06 18:00:18 INFO InternalParquetRecordReader: at row 0. reading next block
16/04/06 18:00:18 INFO InternalParquetRecordReader: block read in memory in 0 ms. row count = 7
16/04/06 18:00:18 INFO CodecPool: Got brand-new decompressor [.gz]
16/04/06 18:00:18 INFO InternalParquetRecordReader: block read in memory in 1 ms. row count = 7
Predicting test image : phone as phone
16/04/06 18:00:18 INFO FileInputFormat: Total input paths to process : 1
16/04/06 18:00:18 INFO ParquetFileReader: Initiating action with parallelism: 5
16/04/06 18:00:18 INFO ParquetFileReader: Initiating action with parallelism: 5
16/04/06 18:00:18 INFO ParquetFileReader: Initiating action with parallelism: 5
16/04/06 18:00:18 INFO ParquetFileReader: Initiating action with parallelism: 5
16/04/06 18:00:18 WARN ParquetRecordReader: Can not initialize counter due to context is not a instance of TaskInputOutputContext, but is org.apache.hadoop.mapreduce.task.TaskA
16/04/06 18:00:18 WARN ParquetRecordReader: Can not initialize counter due to context is not a instance of TaskInputOutputContext, but is org.apache.hadoop.mapreduce.task.TaskA
16/04/06 18:00:18 INFO InternalParquetRecordReader: RecordReader initialized will read a total of 100 records.
16/04/06 18:00:18 INFO InternalParquetRecordReader: at row 0. reading next block
16/04/06 18:00:18 WARN ParquetRecordReader: Can not initialize counter due to context is not a instance of TaskInputOutputContext, but is org.apache.hadoop.mapreduce.task.TaskA
16/04/06 18:00:18 INFO CodecPool: Got brand-new decompressor [.gz]
Compilation completed successfully in 7s 29ms (16 minutes ago)
6:06 PM
4/6/2016


Image_Classification - [C:\Users\npdar\Desktop\Acads\BigDataAnalytics\Assignment\Tutorial 9\CS5542 - Tutorial 9 Code\Image_Classification] - [image_classification] - ...\src\main\scala\IPApp.scala - IntelliJ IDEA 15.0.3
File Edit View Navigate Code Analyze Refactor Build Run Tools VCS Window Help
Image_Classification data3 model
IPApp.scala IPSettings.scala build.sbt
Platform and Plugin Updates
IntelliJ IDEA is ready to update.
// Empty categoricalFeaturesInfo indicates all features are continuous.
val numClasses = 10
val categoricalFeaturesInfo = Map[Int, Int]()
// val numTrees = 10 // Use more in practice.
// val featureSubsetStrategy = "auto" // Let the algorithm choose.
// val impurity = "gini"
// val maxDepth = 4
val maxBins = 100
val numOfTrees = 4 to(5, 1)
val strategies = List("all", "sqrt", "log2", "onethird")
val maxDepths = 3 to(6, 1)
val impurities = List("gini", "entropy")
var bestModel: Option[RandomForestModel] = None
var bestErr = 1.0
var bestParams = new mutable.HashMap[Any, Any]()
var bestnumTrees = 0
var bestFeatureSubSet = ""
Run IPApp
16/04/06 17:59:53 INFO CodecPool: Got brand-new decompressor [.gz]
16/04/06 17:59:53 INFO InternalParquetRecordReader: block read in memory in 0 ms. row count = 7
16/04/06 17:59:53 INFO CodecPool: Got brand-new decompressor [.gz]
16/04/06 17:59:53 INFO InternalParquetRecordReader: block read in memory in 18 ms. row count = 7
16/04/06 17:59:53 WARN ParquetRecordReader: Can not initialize counter due to context is not a instance of TaskInputOutputContext, but is org.apache.hadoop.mapreduce.task.TaskA
16/04/06 17:59:53 INFO InternalParquetRecordReader: RecordReader initialized will read a total of 7 records.
16/04/06 17:59:53 INFO InternalParquetRecordReader: at row 0. reading next block
16/04/06 17:59:53 INFO CodecPool: Got brand-new decompressor [.gz]
16/04/06 17:59:53 INFO InternalParquetRecordReader: block read in memory in 1 ms. row count = 7
Predicting test image : keys as keys
16/04/06 17:59:53 INFO FileInputFormat: Total input paths to process : 1
16/04/06 17:59:53 INFO ParquetFileReader: Initiating action with parallelism: 5
16/04/06 17:59:53 INFO ParquetFileReader: Initiating action with parallelism: 5
16/04/06 17:59:53 INFO ParquetFileReader: Initiating action with parallelism: 5
16/04/06 17:59:53 INFO ParquetFileReader: Initiating action with parallelism: 5
16/04/06 17:59:53 WARN ParquetRecordReader: Can not initialize counter due to context is not a instance of TaskInputOutputContext, but is org.apache.hadoop.mapreduce.task.TaskA
16/04/06 17:59:53 WARN ParquetRecordReader: Can not initialize counter due to context is not a instance of TaskInputOutputContext, but is org.apache.hadoop.mapreduce.task.TaskA
Compilation completed successfully in 7s 29ms (17 minutes ago)
6:07 PM
4/6/2016


47% 9:39 PM
Hello World!
NOTIFY WEARABLE
I'm waiting here: 1234
SiteLocalAddress: 192.168.0.21
#1 from /192.168.0.23:53290
Predicted test image:spects/nreplayed: Hello from Android, you are #1



4.4 Deployment:

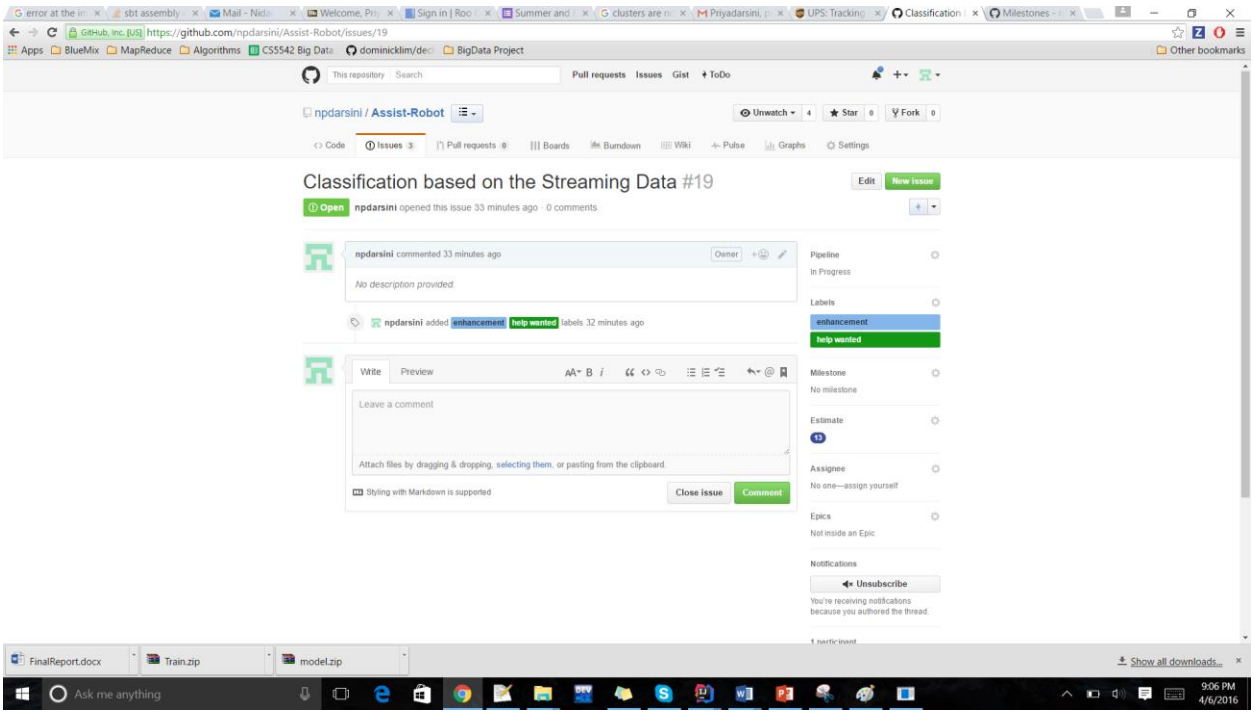
Git Hub Link:

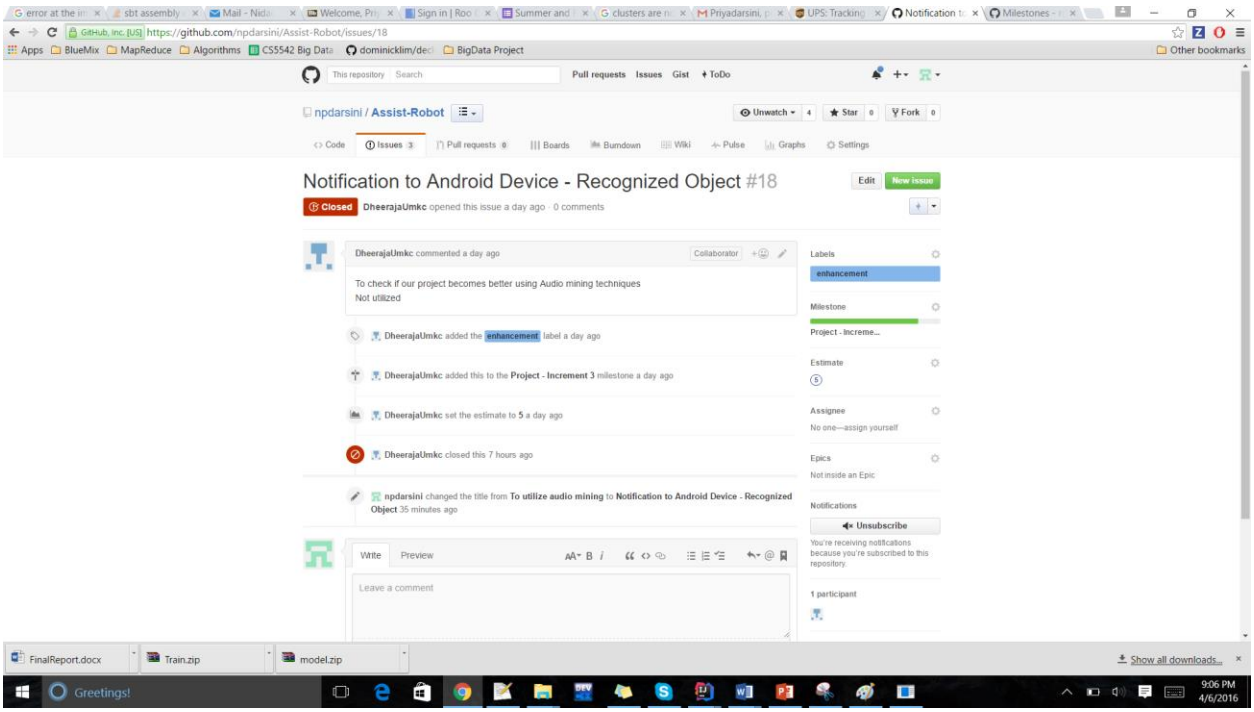
https://github.com/npdarsini/Assist-Robot

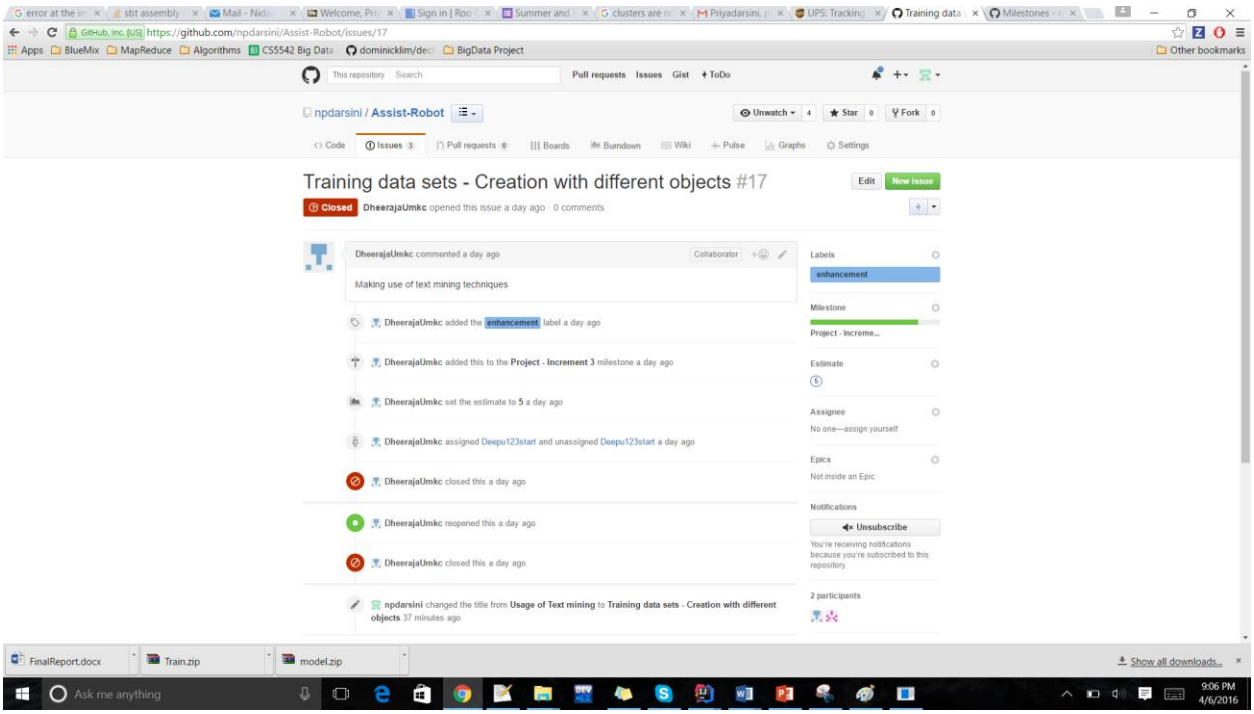
5. Project Management:

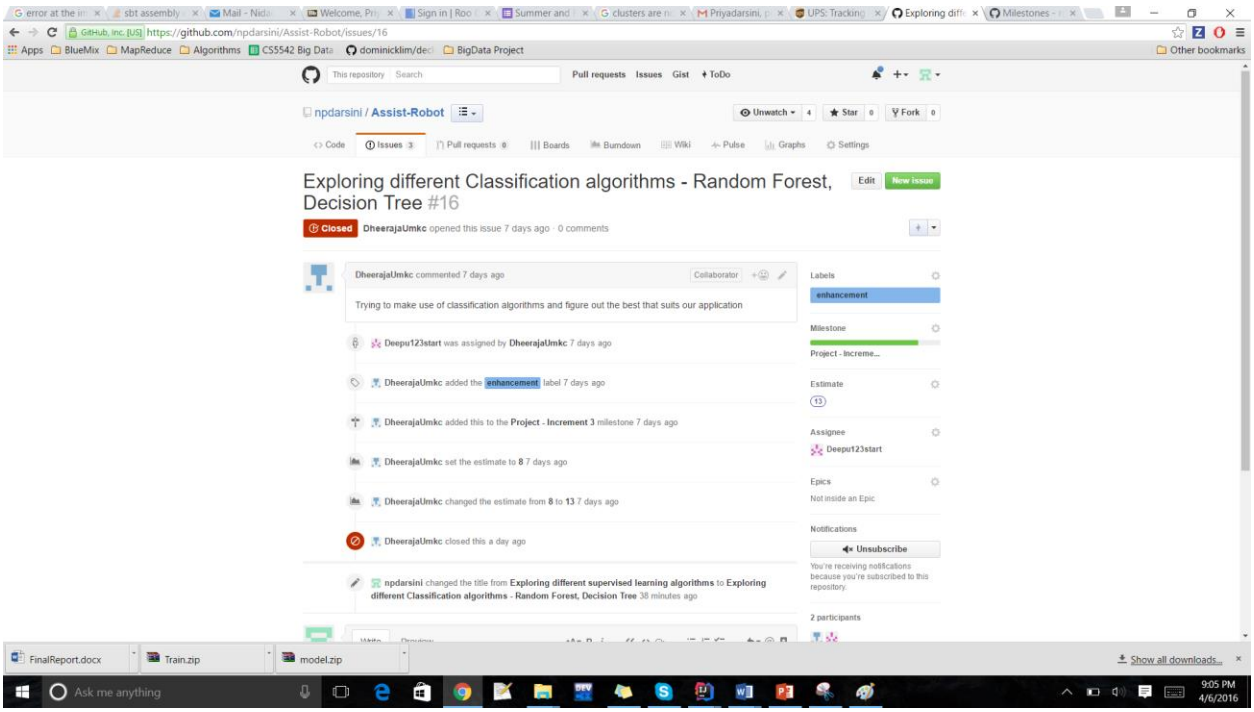
5.1 Implementation status report:

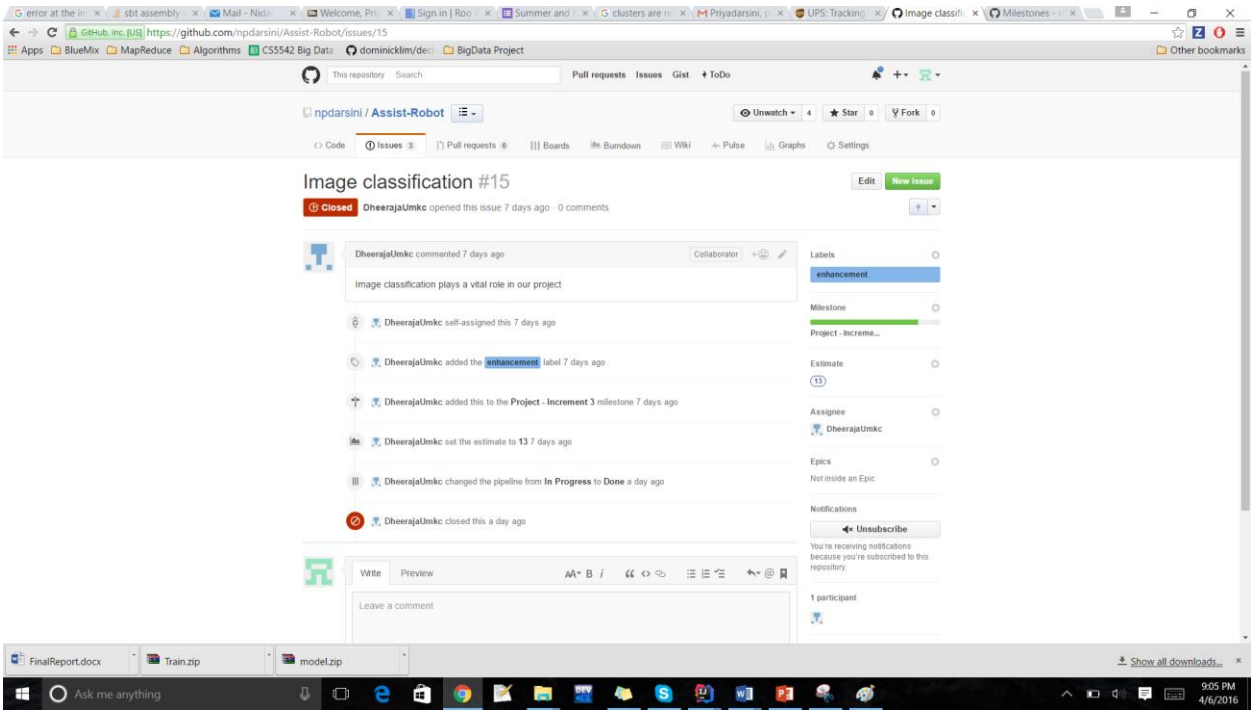
70% implementation has been implemented. This phase involves the development of Image classification report. Basically the system will classify the object based on the provided image and will notify the user about the object. The team members has an equal contribution towards the development and it took around 4 complete days to give an outlook for this phase. First we had tried developing a system with the static training and testing data sets and later we had made the testing part to be the streaming data which comes from the android device. Upon classifying the image the notification will be sent to the user device. Assuming the user will be carrying the smart android device every single time, we thought that this could be as an innovative thought as the user don't need to spend a lot of time for finding the lost objects.

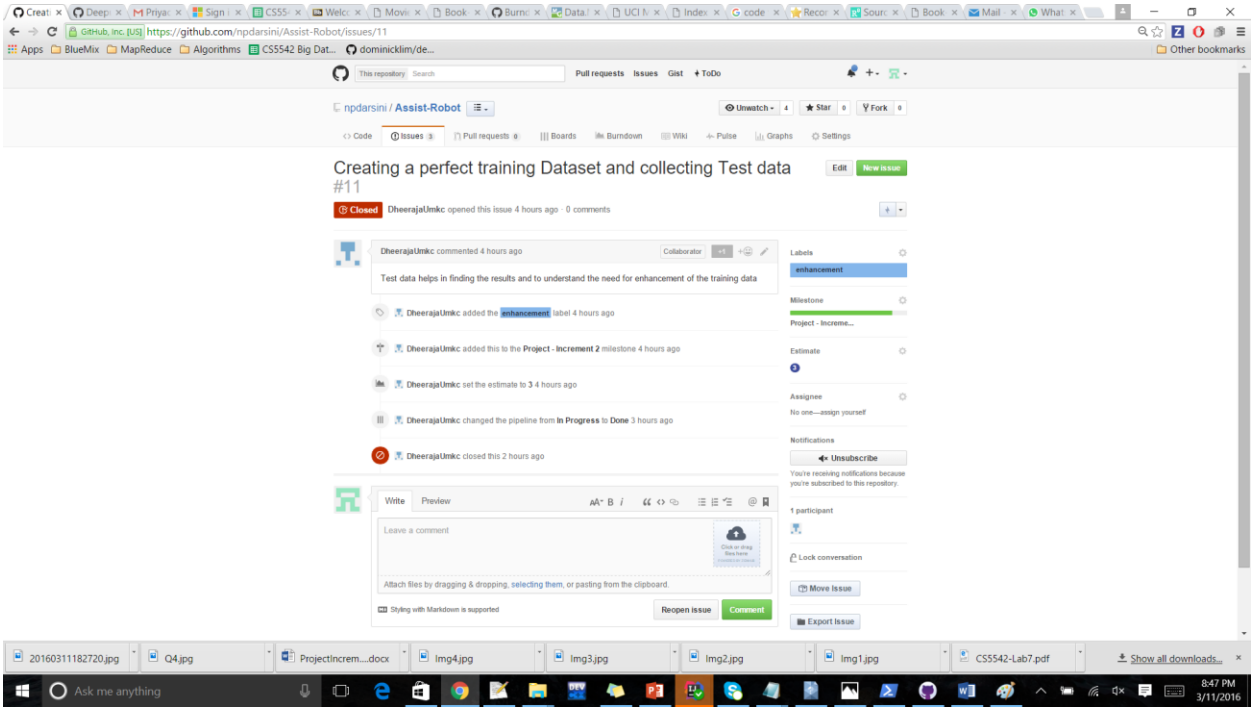

https://github.com/npdarsini/Assist-Robot/issues/19
npdarsini / Assist-Robot
Classification based on the Streaming Data #19
Open
npdarsini opened this issue 33 minutes ago · 0 comments
No description provided.
Leave a comment
Close issue
Comment
Pipeline
In Progress
Labels
enhancement
help wanted
Milestone
No milestone
Estimate
Assignee
No one—assign yourself
Epics
Not inside an Epic
Notifications
Unsubscribe
FinalReport.docx
Train.zip
model.zip
Show all downloads...
Ask me anything
9:06 PM
4/6/2016

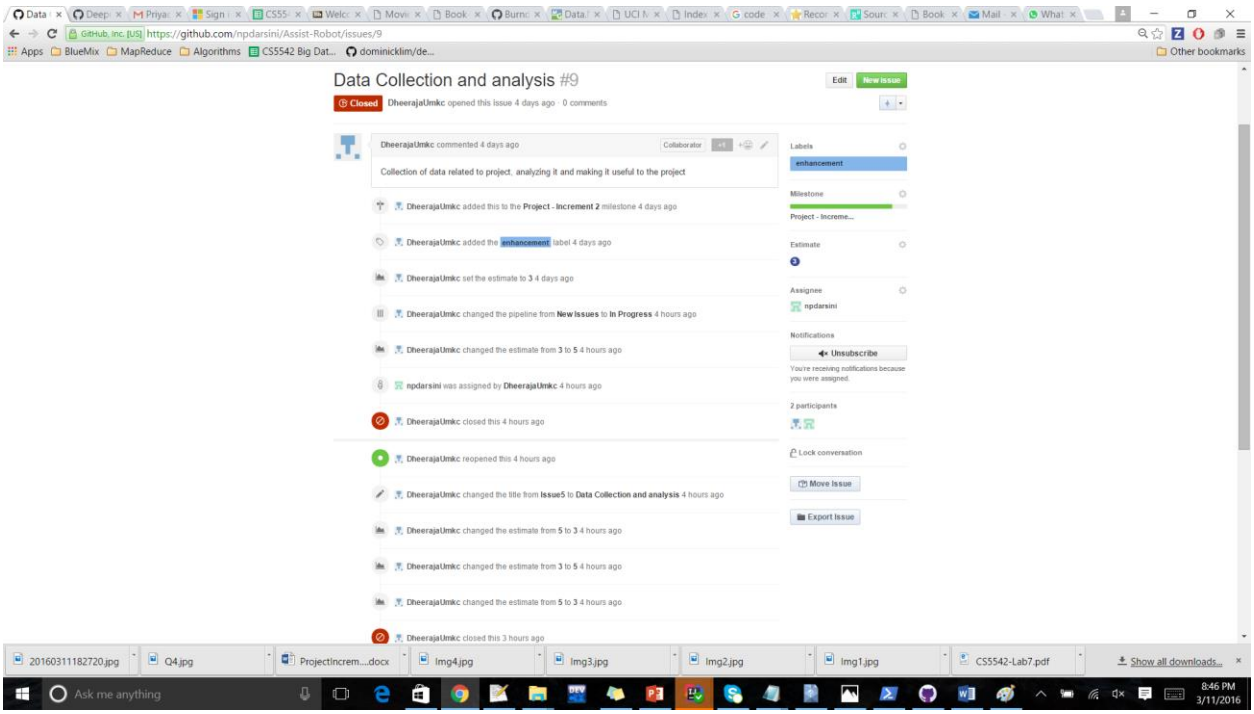

https://github.com/npdarsini/Assist-Robot/issues/18
npdarsini / Assist-Robot
Notification to Android Device - Recognized Object #18
Closed
DheerajaUmkc opened this issue a day ago · 0 comments
To check if our project becomes better using Audio mining techniques
Not utilized
DheerajaUmkc added the enhancement label a day ago
DheerajaUmkc added this to the Project - Increment 3 milestone a day ago
DheerajaUmkc set the estimate to 5 a day ago
DheerajaUmkc closed this 7 hours ago
npdarsini changed the title from To utilize audio mining to Notification to Android Device - Recognized Object 35 minutes ago
Leave a comment
Labels
enhancement
Milestone
Estimate
Assignee
No one—assign yourself
Epics
Not inside an Epic
Notifications
Unsubscribe
1 participant
FinalReport.docx
Train.zip
model.zip
Show all downloads...
Greetings!
9:06 PM
4/6/2016


https://github.com/npdarsini/Assist-Robot/issues/17
npdarsini / Assist-Robot
Training data sets - Creation with different objects #17
Closed
DheerajaUmkc opened this issue a day ago · 0 comments
DheerajaUmkc commented a day ago
Making use of text mining techniques
DheerajaUmkc added the enhancement label a day ago
DheerajaUmkc added this to the Project - Increment 3 milestone a day ago
DheerajaUmkc set the estimate to 5 a day ago
DheerajaUmkc assigned Deepu123start and unassigned Deepu123start a day ago
DheerajaUmkc closed this a day ago
DheerajaUmkc reopened this a day ago
DheerajaUmkc closed this a day ago
npdarsini changed the title from Usage of Text mining to Training data sets - Creation with different objects 37 minutes ago
Labels
enhancement
Milestone
Project - Increme...
Estimate
5
Assignee
No one—assign yourself
Epics
Not inside an Epic
Notifications
Unsubscribe
You're receiving notifications because you're subscribed to this repository.
2 participants
FinalReport.docx
Train.zip
model.zip
Show all downloads...
Ask me anything
9:06 PM
4/6/2016


https://github.com/npdarsini/Assist-Robot/issues/16
npdarsini / Assist-Robot
Exploring different Classification algorithms - Random Forest, Decision Tree #16
Closed
DheerajaUmkc opened this issue 7 days ago · 0 comments
DheerajaUmkc commented 7 days ago
Trying to make use of classification algorithms and figure out the best that suits our application
Deepu123start was assigned by DheerajaUmkc 7 days ago
DheerajaUmkc added the enhancement label 7 days ago
DheerajaUmkc added this to the Project - Increment 3 milestone 7 days ago
DheerajaUmkc set the estimate to 8 7 days ago
DheerajaUmkc changed the estimate from 8 to 13 7 days ago
DheerajaUmkc closed this a day ago
npdarsini changed the title from Exploring different supervised learning algorithms to Exploring different Classification algorithms - Random Forest, Decision Tree 38 minutes ago
Labels
enhancement
Milestone
Project - Increme...
Estimate
13
Assignee
Deepu123start
Epics
Not inside an Epic
Notifications
Unsubscribe
You're receiving notifications because you're subscribed to this repository.
2 participants
FinalReport.docx
Train.zip
model.zip
Show all downloads...
Ask me anything
9:05 PM
4/6/2016


https://github.com/npdarsini/Assist-Robot/issues/15
npdarsini / Assist-Robot
Image classification #15
Closed
DheerajaUmkc opened this issue 7 days ago · 0 comments
DheerajaUmkc commented 7 days ago
image classification plays a vital role in our project
DheerajaUmkc self-assigned this 7 days ago
DheerajaUmkc added the enhancement label 7 days ago
DheerajaUmkc added this to the Project - Increment 3 milestone 7 days ago
DheerajaUmkc set the estimate to 13 7 days ago
DheerajaUmkc changed the pipeline from In Progress to Done a day ago
DheerajaUmkc closed this a day ago
Labels
enhancement
Milestone
Project - Increme...
Estimate
13
Assignee
DheerajaUmkc
Epics
Not inside an Epic
Notifications
Unsubscribe
You're receiving notifications because you're subscribed to this repository.
1 participant
Write
Preview
Leave a comment
FinalReport.docx
Train.zip
model.zip
Show all downloads...
Ask me anything
9:05 PM
4/6/2016


https://github.com/npdarsini/Assist-Robot/issues/11
npdarsini / Assist-Robot
Creating a perfect training Dataset and collecting Test data #11
Closed
DheerajaUmkc opened this issue 4 hours ago · 0 comments
DheerajaUmkc commented 4 hours ago
Test data helps in finding the results and to understand the need for enhancement of the training data
DheerajaUmkc added the enhancement label 4 hours ago
DheerajaUmkc added this to the Project - Increment 2 milestone 4 hours ago
DheerajaUmkc set the estimate to 3 4 hours ago
DheerajaUmkc changed the pipeline from In Progress to Done 3 hours ago
DheerajaUmkc closed this 2 hours ago
Labels
enhancement
Milestone
Project - Increme...
Estimate
3
Assignee
No one—assign yourself
Notifications
Unsubscribe
You're receiving notifications because you're subscribed to this repository.
1 participant
Lock conversation
Move Issue
Export Issue
Write
Preview
Leave a comment
Attach files by dragging & dropping, selecting them, or pasting from the clipboard.
Styling with Markdown is supported
Reopen issue
Comment
20160311182720.jpg
Q4.jpg
ProjectIncrem....docx
Img4.jpg
Img3.jpg
Img2.jpg
Img1.jpg
CS5542-Lab7.pdf
Show all downloads...
Ask me anything
8:47 PM
3/11/2016


https://github.com/npdarsini/Assist-Robot/issues/9
Data Collection and analysis #9
Edit
New issue
Closed
DheerajaUmkc opened this issue 4 days ago · 0 comments
DheerajaUmkc commented 4 days ago
Collaborator
Collection of data related to project, analyzing it and making it useful to the project
DheerajaUmkc added this to the Project - Increment 2 milestone 4 days ago
DheerajaUmkc added the enhancement label 4 days ago
DheerajaUmkc set the estimate to 3 4 days ago
DheerajaUmkc changed the pipeline from New Issues to In Progress 4 hours ago
DheerajaUmkc changed the estimate from 3 to 5 4 hours ago
npdarsini was assigned by DheerajaUmkc 4 hours ago
DheerajaUmkc closed this 4 hours ago
DheerajaUmkc reopened this 4 hours ago
DheerajaUmkc changed the title from Issue5 to Data Collection and analysis 4 hours ago
DheerajaUmkc changed the estimate from 5 to 3 4 hours ago
DheerajaUmkc changed the estimate from 3 to 5 4 hours ago
DheerajaUmkc changed the estimate from 5 to 3 4 hours ago
DheerajaUmkc closed this 3 hours ago
Labels
enhancement
Milestone
Project - Increme...
Estimate
Assignee
npdarsini
Notifications
Unsubscribe
You're receiving notifications because you were assigned.
2 participants
Lock conversation
Move Issue
Export Issue
20160311182720.jpg
Q4.jpg
ProjectIncrem....docx
Img4.jpg
Img3.jpg
Img2.jpg
Img1.jpg
CS5542-Lab7.pdf
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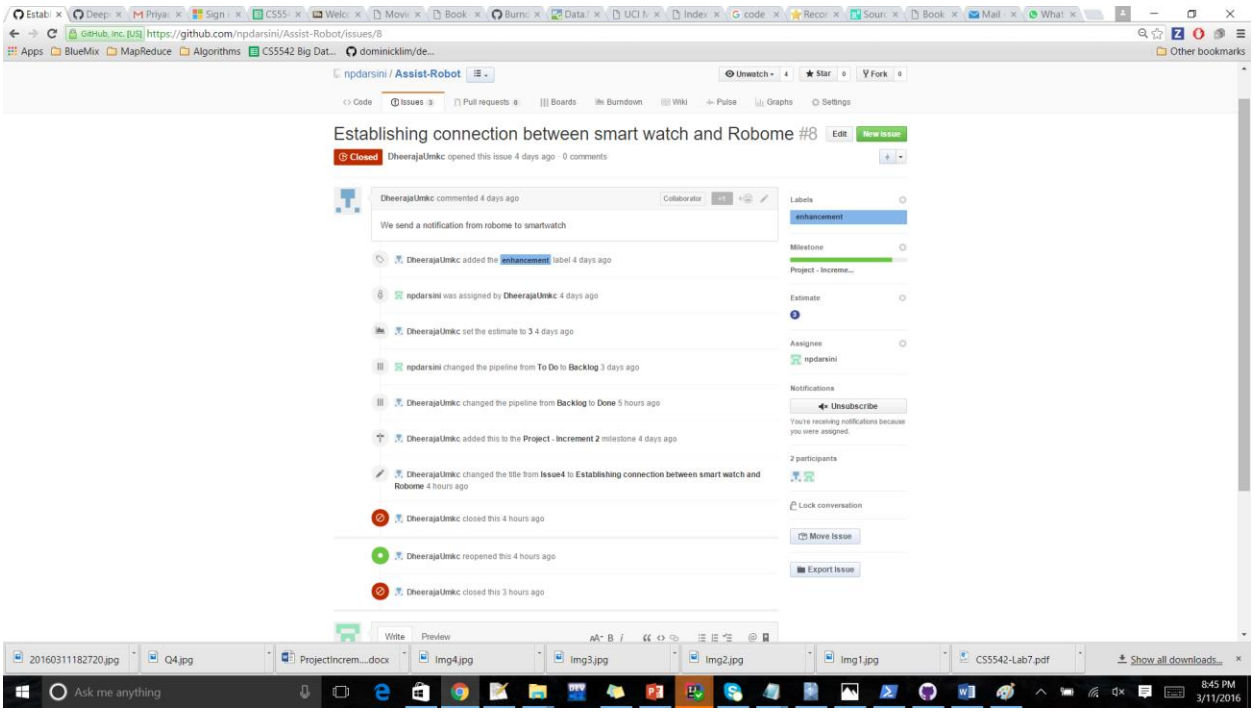
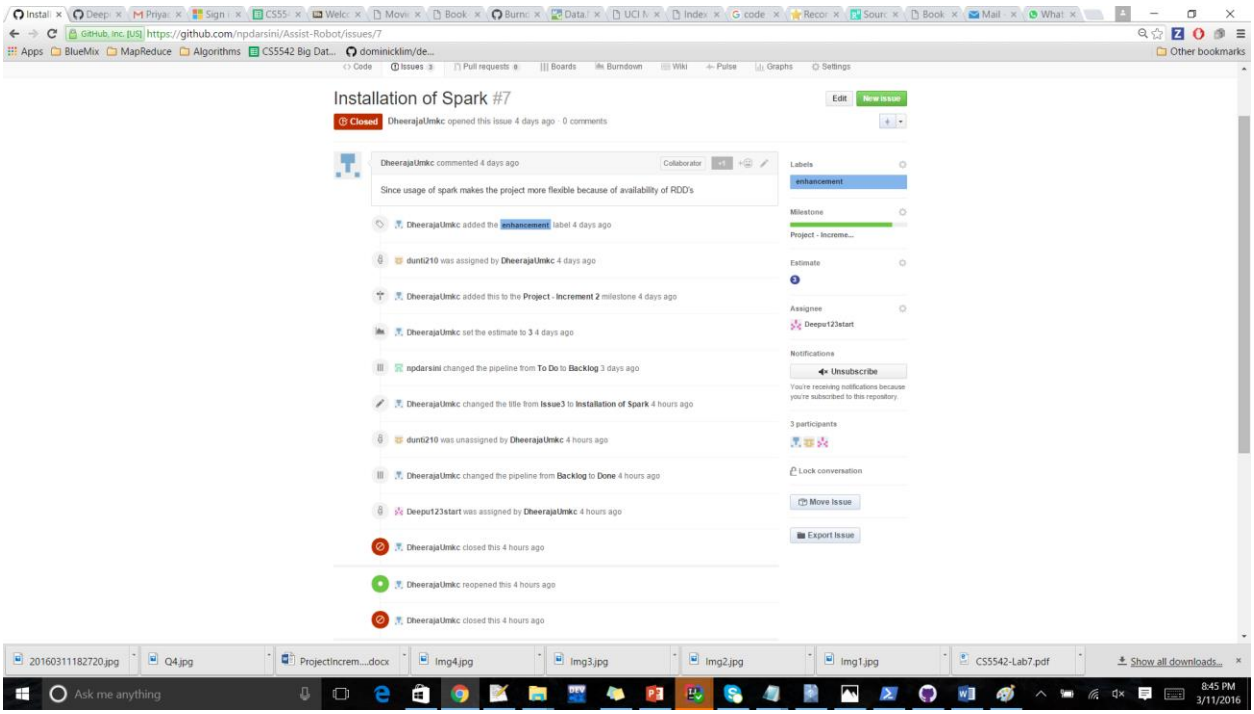
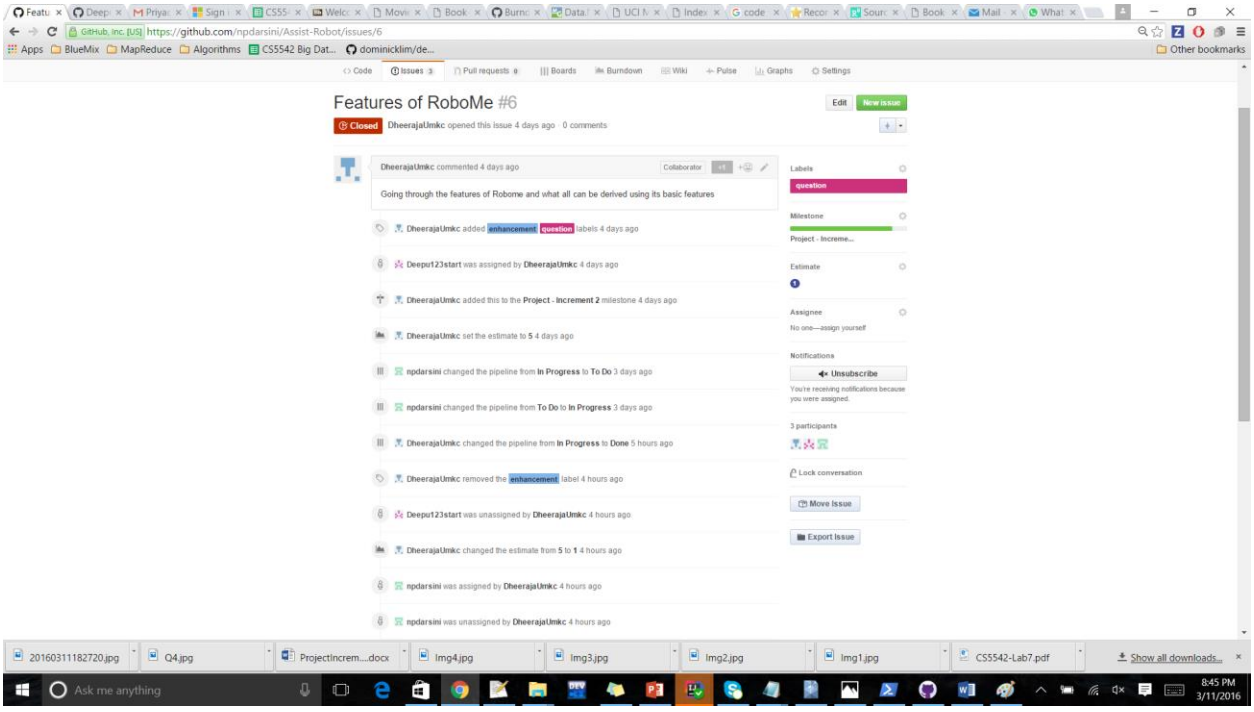
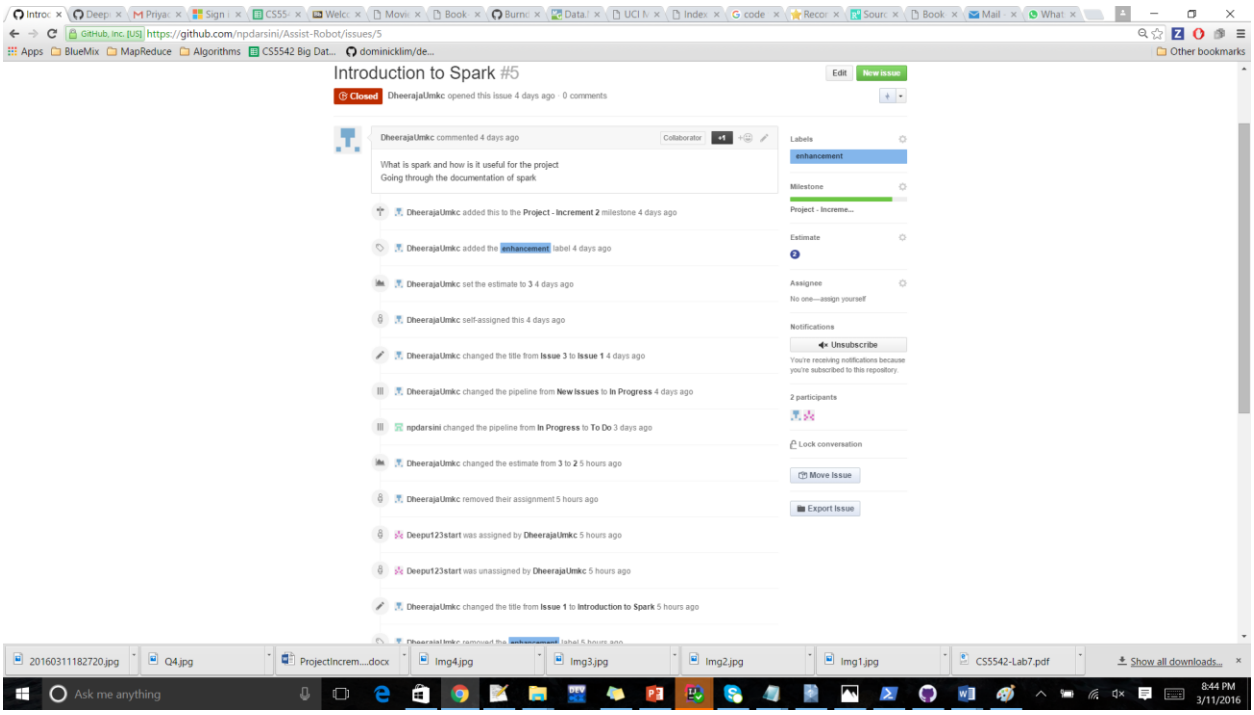
Ask me anything
8:46 PM
3/11/2016


https://github.com/npdarsini/Assist-Robot/issues/8
npdarsini / Assist-Robot
Unwatch
Star
Fork
Code
Issues
Pull requests
Boards
Burndown
Wiki
Pulse
Graphs
Settings
Establishing connection between smart watch and Robome #8
Edit
New issue
Closed
DheerajaUmkc opened this issue 4 days ago · 0 comments
DheerajaUmkc commented 4 days ago
Collaborator
We send a notification from robome to smartwatch
DheerajaUmkc added the enhancement label 4 days ago
npdarsini was assigned by DheerajaUmkc 4 days ago
DheerajaUmkc set the estimate to 3 4 days ago
npdarsini changed the pipeline from To Do to Backlog 3 days ago
DheerajaUmkc changed the pipeline from Backlog to Done 5 hours ago
DheerajaUmkc added this to the Project - Increment 2 milestone 4 days ago
DheerajaUmkc changed the title from Issue4 to Establishing connection between smart watch and Robome 4 hours ago
DheerajaUmkc closed this 4 hours ago
DheerajaUmkc reopened this 4 hours ago
DheerajaUmkc closed this 3 hours ago
Write
Preview
Labels
enhancement
Milestone
Project - Increme...
Estimate
Assignee
npdarsini
Notifications
Unsubscribe
You're receiving notifications because you were assigned.
2 participants
Lock conversation
Move Issue
Export Issue
20160311182720.jpg
Q4.jpg
ProjectIncrem....docx
Img4.jpg
Img3.jpg
Img2.jpg
Img1.jpg
CS5542-Lab7.pdf
Show all downloads...
Ask me anything
8:45 PM
3/11/2016


https://github.com/npdarsini/Assist-Robot/issues/7
Installation of Spark #7
Closed
DheerajaUmkc opened this issue 4 days ago · 0 comments
Edit
New issue
DheerajaUmkc commented 4 days ago
Collaborator
Since usage of spark makes the project more flexible because of availability of RDD's
DheerajaUmkc added the enhancement label 4 days ago
dunti210 was assigned by DheerajaUmkc 4 days ago
DheerajaUmkc added this to the Project - Increment 2 milestone 4 days ago
DheerajaUmkc set the estimate to 3 4 days ago
npdarsini changed the pipeline from To Do to Backlog 3 days ago
DheerajaUmkc changed the title from Issue3 to Installation of Spark 4 hours ago
dunti210 was unassigned by DheerajaUmkc 4 hours ago
DheerajaUmkc changed the pipeline from Backlog to Done 4 hours ago
Deeput123start was assigned by DheerajaUmkc 4 hours ago
DheerajaUmkc closed this 4 hours ago
DheerajaUmkc reopened this 4 hours ago
DheerajaUmkc closed this 4 hours ago
Labels
enhancement
Milestone
Project - Increme...
Estimate
Assignee
Deeput123start
Notifications
Unsubscribe
You're receiving notifications because you're subscribed to this repository.
3 participants
Lock conversation
Move Issue
Export Issue
20160311182720.jpg
Q4.jpg
ProjectIncrem....docx
Img4.jpg
Img3.jpg
Img2.jpg
Img1.jpg
CS5542-Lab7.pdf
Show all downloads...
Ask me anything
8:45 PM
3/11/2016


https://github.com/npdarsini/Assist-Robot/issues/6
Features of RoboMe #6
Closed
DheerajaUmkc opened this issue 4 days ago · 0 comments
Edit
New issue
DheerajaUmkc commented 4 days ago
Collaborator
Going through the features of Robome and what all can be derived using its basic features
DheerajaUmkc added enhancement question labels 4 days ago
Deeput123start was assigned by DheerajaUmkc 4 days ago
DheerajaUmkc added this to the Project - Increment 2 milestone 4 days ago
DheerajaUmkc set the estimate to 5 4 days ago
npdarsini changed the pipeline from In Progress to To Do 3 days ago
npdarsini changed the pipeline from To Do to In Progress 3 days ago
DheerajaUmkc changed the pipeline from In Progress to Done 5 hours ago
DheerajaUmkc removed the enhancement label 4 hours ago
Deeput123start was unassigned by DheerajaUmkc 4 hours ago
DheerajaUmkc changed the estimate from 5 to 1 4 hours ago
npdarsini was assigned by DheerajaUmkc 4 hours ago
npdarsini was unassigned by DheerajaUmkc 4 hours ago
Labels
question
Milestone
Project - Increme...
Estimate
Assignee
No one—assign yourself
Notifications
Unsubscribe
You're receiving notifications because you were assigned.
3 participants
Lock conversation
Move Issue
Export Issue
20160311182720.jpg
Q4.jpg
ProjectIncrem....docx
Img4.jpg
Img3.jpg
Img2.jpg
Img1.jpg
CS5542-Lab7.pdf
Show all downloads...
Ask me anything
8:45 PM
3/11/2016



Bibliography:

Lab Tutorials and the material provided by Dr. Lee.