

---

# **Software Engineering**

## **MINUTES OF THE MEETINGS WITH CUSTOMER**

### **GROUP - Club\_Elite**

**IIT2018114 - Harsh Goyal**

**IIT2018144 - Aaditya Gadhave**

**IIT2018149 - Sourabh Gupta**

**IIT2018158 - Meet Singh Gambhir**

**IIT2018159 - Tushar Atrey**

**Instructor - Amit Kumar, Ashutosh Kumar**

*IV Semester, Department of Information Technology,  
Indian Institute of Information Technology, Allahabad, Prayagraj.*

---

# Minutes of Meetings with the Customer

## Meeting - 1

20 January 2020 / 7:00PM / BIG DATA ANALYTICS LAB,CC3

### Attendees

Amit Kumar , Project Instructor  
Harsh Goyal (IIT2018114)  
Aaditya Gadhave (IIT2018144)  
Sourabh Gupta (IIT2018149)  
Meet Singh Gambhir (IIT2018158)  
Tushar Atrey (IIT2018159)

### Agenda

1. Introduction and briefing of the project.
2. Briefing on the manner of working.
3. Introduction to research paper and bugzilla.
4. Assigning tasks.

### Notes

- The meeting started with introductions.
- The instructor informed me about the manner of working and it was decided that 2 meetings per week, one each Monday and each Friday will take place.

- Then the task is assigned to our group.
- The instructor gives an introduction about the assigned task and what we have to do.
- The instructor was informed about the heterogeneous network and its advantages over homogeneous networks.
- Instructor explained the different types of meta paths with the help of the author and research paper example.
- The instructor shows us the site bugzilla and tells us how it works.
- An overview of the dataset on which the work is to be done was given.
- Tasks to be completed until the next meeting were assigned

## **Action Items**

1. Team is required to download the dataset and familiarize with it thus setting the environment of the project.
2. The team is required to study the research papers on heterogeneous graph networks.(to be circulated by the instructor).

## **Meeting - 2**

**29 January 2020 / 6:30PM/BIG DATA ANALYTICS LAB,CC3**

## **Attendees**

Amit Kumar ,Project Instructor  
Harsh Goyal (IIT2018114)  
Aaditya Gadhave (IIT2018144)  
Sourabh Gupta (IIT2018149)  
Meet Singh Gambhir (IIT2018158)  
Tushar Atrey (IIT2018159)

## **Agenda**

1. Briefing of the project
2. Implementation of the project
3. Introduction to meta paths
4. Different type of meta paths

## **Notes**

- The meeting started with the briefing of the project
- The instructor informed about the heterogeneous network and its advantages over homogeneous network
- Instructor explained the different type of meta paths with the help of author and research paper example
- Instructor assigned the task i.e identifying the relationship among the bugs over the heterogeneous network using statistics , algorithms, testing sets etc.
- Tasks to be completed until the next meeting were assigned

## **Action Items**

1. Team is required the find the meta paths between the bugs
2. In this stage of the project the direct paths relating to the bugs and enhancing their similarities . such as bug - file -bug , bug - comment - bugs , etc were needed to be calculated , and keep their account.

## **Meeting - 3**

**03 February 2020 / 5:00PM / BIG DATA ANALYTICS LAB,CC3**

## **Attendees**

Amit Kumar , Project Instructor  
Harsh Goyal (IIT2018114)  
Aaditya Gadhave (IIT2018144)

Sourabh Gupta (IIT2018149)  
Meet Singh Gambhir (IIT2018158)  
Tushar Atrey (IIT2018159)

## **Agenda**

1. Briefing of the work to be done next.
2. Count of meta paths.
3. Inspection of the work done.
4. Assigning tasks.

## **Notes**

- The meeting started with the inspection of the work that is already done.
- Count the path that exists between bugs using algorithms like bfs or dfs.
- Instead of counting the path between two bugs we have counted the path that exists from one bug so the instructor has said it has to be corrected till the last meeting.
- Tasks to be completed until the next meeting were assigned.

## **Action Items**

1. Team is required to update the MOM and correct the work that is already done.
2. Count the path of all types (in terms of related) that exists between two bugs.

# Meeting - 4

10 February 2020 / 7:00PM/BIG DATA ANALYTICS LAB,CC3

## Attendees

Amit Kumar ,Project Instructor  
Harsh Goyal (IIT2018114)  
Aaditya Gadhave (IIT2018144)  
Sourabh Gupta (IIT2018149)  
Meet Singh Gambhir (IIT2018158)  
Tushar Atrey (IIT2018159)

## Agenda

1. How to make sample graph on complex meta paths
2. Introduction to symmetric and asymmetric meta paths
3. Working on Hadoop database

## Notes

- The meeting started with the briefing of the work we did earlier
- The instructor told us to make sample graphs on complex meta paths so that he can verify whether our program is working or not.
- Instructor explained the difference between symmetric and asymmetric meta paths.
- Instructor told us to work on hadoop database for our next task
- Instructor assigned the task i.e to make a table in which we have to store the count of different kinds of meta path between two bugs.
- Tasks to be completed until the next meeting were assigned

## Action Items

1. Team is required to make a table in which we have to store the count of different kinds of meta paths between two bugs which was reported between 2010 and 2013(Training Data).

2. Team is required to make another table in which we have to store the count of all kinds of meta paths between the two bugs(one bug was reported between 2010 and 2013 and one bug was reported between 2014 and 2015 (Testing Data)).

## **Meeting - 5**

**19 February 2020 / 7:00PM/BIG DATA ANALYTICS LAB,CC3**

### **Attendees**

Amit Kumar ,Project Instructor  
Harsh Goyal (IIT2018114)  
Aaditya Gadhave (IIT2018144)  
Sourabh Gupta (IIT2018149)  
Meet Singh Gambhir (IIT2018158)  
Tushar Atrey (IIT2018159)

### **Agenda**

1. Main agenda of this meeting was B - T - B metapath
2. Introduction to stemming and lemmatization
3. Instructor introduces us to Word n-gram , character n-gram and topic modeling.
4. Introduction to NLTK toolkit

### **Notes**

- The meeting started with the briefing of the work we did earlier
- The instructor told us how to implement the B - T - B metapath
- Instructor told us that in stemming we remove stop words ( is ,are,and ,etc) and in lemmatization we convert all the verbs into present form.
- In word n-gram we took n words subarray from two different text files and compared them . Ex. in word 1-gram we took 1 word subarray from files.

- In character n-gram we took n characters subarray from two different text files and compared them . Ex. in character 3-gram we took 3 characters subarray from files.
- Instructor gave an introduction to topic modeling.
- Tasks to be completed until the next meeting were assigned

## Meeting - 6

4 March 2020 / 7:00PM/BIG DATA ANALYTICS LAB,CC3

### Attendees

Amit Kumar ,Project Instructor  
Harsh Goyal (IIT2018114)  
Aaditya Gadhave (IIT2018144)  
Sourabh Gupta (IIT2018149)  
Meet Singh Gambhir (IIT2018158)  
Tushar Atrey (IIT2018159)

### Agenda

1. Main agenda of this meeting was topic modeling.
2. Getting familiar with Gensim , LDA++ and Maillet tools used for topic modeling
3. Introduction to WEKA and ARFAA file
4. Making the corpus and training the data

### Notes

- The meeting started with the briefing of the work we did earlier
- The instructor told us how to make a corpus for the topic modeling tools.
- Instructor told us to divide the data into two parts :
  - I) training data (70%)
  - II) testing data (30%)



- Instructor told us how to train our data and how to test whether it is working correct or not
- Instructor assigned the task i.e to make the table in which rows will be the pairs of bugs and in columns there will be different kinds of paths(mentioned in the meeting) . Each index value means the competitive measures between a bug pair.
- We have to make such four matrix because there are four methods of competitive measures(path count,normalized path count,random walk, symmetric random walk)
- Tasks to be completed until the next meeting were assigned

## **Action Items**

1. Team is required to do the topic modeling
2. Team is required to train the data.
3. Team is required two make tables for bug pairs and competitive measures.