PROJECT STATUS REPORT FOR 6th Semester

Note: Please Specify NA if not applicable and AS if already submitted.

1. GROUP NO (If ANY): CS-25

2. Department/Program: B. Tech (Computer Science and Engineering)

3. Date of Project Report Submission: April 21, 2018

4. MENTOR NAME: Mr. Rajesh Tripathi

5. Status of the Project (Changes done with respect to your previous reports): Completed

6. Project Title: Product Recommender System

7. Origin of the Project
(Technicality and motivation behind this work should be elaborated)
Our Project deals with identifying and predicting the most relevant products for an user based on his/her previous interaction. We are interacting with the recommender systems in our day-to-day life like product recommendation in e-commerce sites (Amazon, Flipkart), friend recommendation in social networking sites (Facebook, Instagram), movie and video recommendation in YouTube, Netflix and job recommendation in Linkedin etc. We have designed different types of Recommender System-
a) User-User Collaborative Filtering using Pearson similarity- In it, we look for users who share the same rating patterns with the active user and use the ratings from those like- minded users to calculate a prediction for the active user.

b) Item-Item Collaborative Filtering using K-nearest neighbours- In it, we build an item-item matrix determining

Relationship between pairs of item and infer the tastes of the current user by examining the matrix and matching that user data.

c) Popularity Model- It recommends the most popular products rated by the users.

8. Other Similar ideas available on internet (Please mention origin of sources like website addresses, ftp address etc.):
Amazon- https://www.amazon.in
Facebook- https://www.facebook.com
YouTube- https://www.youtube.com
Linkedin- https://www.linkedin.com

9. Importance of the proposed project in the context of current status and its relevance to computer science and engineering (Highlight what is the new area or gap which will be solved in the project in relating to what is already known.)

Currently the industry is trying to integrate various advanced recommender systems which work on group recommendation or POI (point of interest) or meta data analysis. Our project focuses on improving the understanding of the users and the items. We can further improve our project with incorporation of the contextual information into the recommendation process, support of multi-criteria rating, and provision of more flexible and less intrusive types of recommendations. The future of recommender systems lie in integrating self-actualization to do justice to serendipity while recommending which will also support rather than replace human decision-making by understanding preferences.

10. Work Plan (Prepare a time chart to show Time Schedule of activities)

1. Methodology:

   (a) Analysis of Problem.
   (b) Framing the appropriate modules for the problem statement.
   (c) Implementing each module and continuously testing correctness of each component.
   (d) Obtained Results are verified and compared.

2. Time Schedule of activities

   (a) Week 1-3 Analysis of Problem and collecting datasets
   (b) Week 4-5 Framing the appropriate modules for the problem statement.
   (c) Week 6-9 Implementing each module and continuously testing correctness of each component.
   (d) Week 10-11 Obtained Results are verified and compared.

3. Outcome expected from the project and its relevance to computer science and engineering.Predict the most relevant product for a user and its rating. Also calculate the Accuracy and error in predicting the product. We try to increase the accuracy and minimize the error.

   (a) Summary of roles/responsibilities of all students:
      i. Sajad Ansari (20154175)
         A. Surveying research papers
         B. Learning related python modules and libraries and frameworks
         C. Learning machine learning related algorithms
         D. Analysis of problem
         E. Preprocessing the datasets
         F. Designing model
         G. Coding models
         H. Documentation
      ii. Rajeev Ranjan (20154167)
         A. Surveying research papers
         B. Learning related python modules and libraries and frameworks
         C. Learning machine learning related algorithms
         D. Finding proper datasets

E. Analysis of problem
F. Preprocessing the datasets
G. Designing model
H. Coding models
I. Documentation

iii. Naval Kishore Jangid (20154171)
A. Surveying research papers
B. Learning related python modules and libraries and frameworks
C. Learning machine learning related algorithms
D. Finding proper datasets
E. Analysis of problem
F. Preprocessing the datasets
G. Coding models
H. Testing the model and error calculating
I. Documentation

iv. Vaibhav Badole (20154033)
A. Surveying research papers
B. Learning related python modules and libraries and frameworks
C. Learning machine learning related algorithms
D. Analysis of problem
E. Designing model
F. Testing the model and error calculating
G. Documentation

v. Rebba Prashanth (20154150)
A. Surveying research papers
B. Learning related python modules and libraries and frameworks
C. Learning machine learning related algorithms
D. Analysis of problem
E. Documentation of code
F. Testing the model and error calculating
G. Documentation

Student's information

Sr. No.	Registration Number	Name of Student	Any specific observation
1.	20154175	Sajad Ansari	
2.	20154167	Rajeev Ranjan	
3.	20154171	Naval Kishore Jangid	
4.	20154033	Vaibhav Badole	
5.	20154150	Rebba Prashanth	

Comments (if any): _____

Suggestions for improvement (if any): _____

Signature of Mentor

PANEL COMMENTS

Comments (if any): _____

Suggestions for improvement (if any): _____

Signature of Panel Representative