20IT6205A: AGILE SOFTWARE DEVELOPMENT

Home Assignment

A.Y: 2022-23

Name: Ajay Kumar Varma Nagaraju **Roll No:208W1A12A1**

1. Name of the project: Interpreting Doctor's Handwritten Prescription.

2. Describe the application/ software/ prototype/ product:

A Doctor's Handwriting Recognition model can predict (recognize) the text present in the doctor's prescription, by feeding image of that medicine name to the model and it predicts the text present in the image and it gives the final medicine name as digital text. This model is suitable only for Text written in English Language and not suitable for other languages of texts written in prescription. The model based on training dataset the output it produces may get varied and based on training images count. Both convolution layers and Bi-Directional LSTM layers can be used for feature extraction and recognizing text respectively.

3. Objectives of application/ software/ prototype TV/product with respect to HOT analysis framework (In bullet points):

- Solution to digitize the handwritten text on prescription with better performing deep learning models.
- The goal of this project is to build a model which accurately recognizes the Doctor's Handwriting.

4. Team Forming: Give the details of your team in the below table format

Student's name	Student's ID	Department of Faculty	Electronic mail
Ajay Kumar Varma	208W1A12A1	IT	ajaynagaraju32@outlook.com
Md.Rizwanullah	208W1A1299	IT	mailtorizwan@gmail.com

5. Describe the role schema with respect to your project (In tabular form) and elaborate on your role.

Student's name	Student's ID	Role schema
Ajay Kumar Varma	208W1A12A1	Author,Neural network builder
Md.Rizwanullah	208W1A1299	Corresponding author,Coder

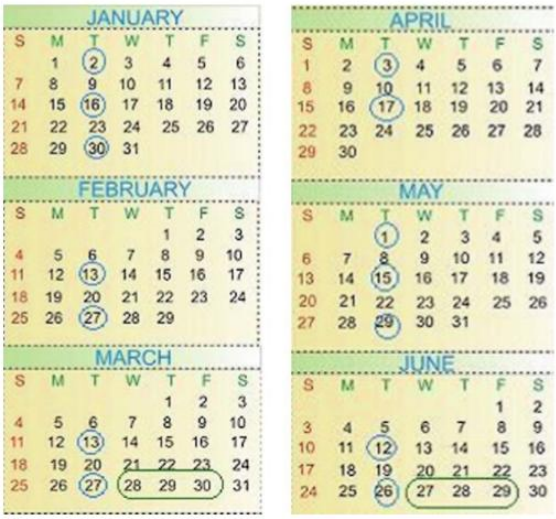
My details of my role:

As a neural network builder i need to build Neural network with an architecture. Re-designing topologies of neural network in order to improve accuracy of model. As an author i should prepare documentation and research paper for publication of our work.

6. Your team is told that if the project it is working on is successfully completed on time, the team will receive a bonus. Five options for bonus allocation are outlined below. Please explain how each option might influence team cooperation, and select the option you prefer. (In tabular form only)

	Personal Bonus (% of the total bonus)	Team Bonus (% of the total bonus)	How this option may influence teammates cooperation
A	**100**	**0**	He thinks that he done well personally but not with respect to team. He will try to cooperate with team members.
B	**80**	**20**	Similar to A, as he is getting some personal bonus he may work for team.
C	**50**	**50**	Here both personal and team are balanced. So he surely work for team and manages his work in better way.
D	**20**	**80**	He cooperates well because with respect to team he is doing well and got bonus.
E	**0**	**100**	He will do best work with respect to team and keeps his full soul on work.

7. Give out the schedule of your project (for at least 2 weeks) by calculating the iterations and business days. (In tabular format)



S.NO	DAYS	DESCRIPTION	SCHEDULE
1.	Business Day	This period is working period.Generally,5 days in a week.	Monday -Friday.This days we used to see all work related timings and schedules.
2.	Development Day	In 5 days,4 days is spent for developing model and changing topology and rebuild network.	Monday-Thursday.In this days in week we used to develop our model.
3.	Deployment Day	Last business day is for deploying model.	Friday. Its completely a deployment day when we deploy our model.

8. List few functional requirements:

- Python programming language

- Tensorflow,Keras modules
- Pytorch module
- Bi-LSTM Model

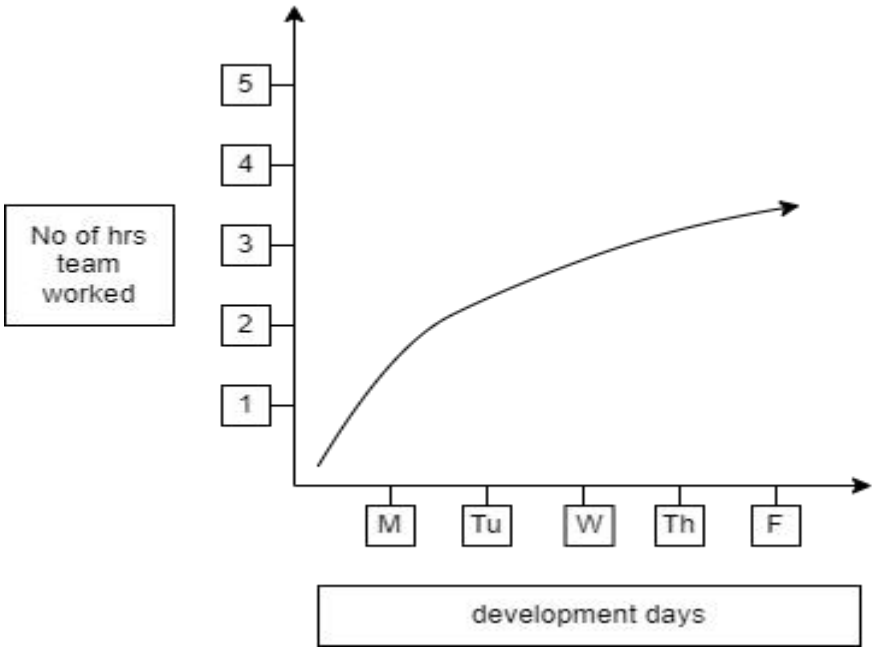
9. What metaphors would you suggest for your project? Explain why?

- **The mind is a computer:** Similar to neural network, which is done with computer.which enables computer to work like a human brain.
- **Time is money:** time we spend for building network topology and training time it takes was valuable.

10. Elaborate on the Time-Related Problems that you faced in your Project.

- Exams wasted our time and more time we spent for preparing exams.
- For training models it takes 6-10 hours of time. If we want to change topology and try again it takes more time to do.

11. Draw a graph describing the estimation development and actual development with development days in x –axis and no of hours your team worked on project on y- axis. There will definitely be a delay in the actual development, Explain why?



This can be due to bottlenecks.

12. Define Quality with respect to your project and how do you measure it?

- If our model is giving better accuracy and predicting the text inside images well then according to our application its quality is upto the mark.
- The training time should be less but accuracy should be more.

13. Is your team diverse? If so, in what sense? Do you benefit from this diversity? If not, why? If so, how? If your team is not diverse, what is common to all the team members? Describe something specific.

- Yes our team is diverse. The two members of our team including me we are having different skills. We can handle any situation which is known to us.
- I can handle with neural networks and my team member can handle with image quality and preprocessing phase. And documentation is common skill for both.

14. Describe a scenario that illustrates how diversity may harm agile teamwork. What characterizes such scenarios?

- The harm maybe with ego.One person thinks this is better and another some other is better to work.
- We should manage coding and as well as documentation. If there is no coordination between team members with this two aspects then work submission will be done lately.the work will not get completed within the fixed sprint.

15. Describe the learnings that we have achieved from your overall project work?

- From our work we learnt design neural network topology and performance metrics.
- Learnt different types of neural networks their gates and characteristics.
- We came to know various packages used for deep learning and their uses in python.