Detail Project Report

**Project Title: Fake news classifier**

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**Project Description:**

**Project title: Fake news classifier**

This project consists of building a web app, which is used to predict the news weather it’s fake news or real news. This is a multi classification problem.

The idea behind this is occurred by looking at the real world scenario where a person read a news paper daily and believe that the given information is true but some time the given information is fake, after reading the news paper a person thinks that it’s true and share it with everyone. In India fake news spread more quickly than anything.

To avoid this kind on news I have come up with a model.

**Time taken to build a model:**

To develop this model I along with my team have taken one months as it was my first deep learning project and we have faced many challenges such as follows:

* Information collecting related to project
* Data collection and size of the data
* Execution planning
  + - Model training and prediction
    - User interface planning and developing it.
    - Deploying using flask
    - Creating an application

For easy and quick completion each and every task has been divided and equally shared through team members. There was also a time limit given to each and every member and they need to submit it in the given time stamp only.

Time distribution:

* Information collection related to the project 🡪 2 days
* Data gathering, merging, etc. 🡪 2 days
* Execution planning 🡪 2 week
* Model development and deployment 🡪1 week
* Testing 🡪 3 days

Total 2 people where involve in developing this model and my role was to clean the data, develop multiple model, checking the deployment in local machine.

**Data Part:** The default data is collected from the kaggle.com.

**Development strategies**

The project is broken down into three different parts:

* The first part consists of working with a deep learning model to detect the food ingredients.
* The second part consists of creating an endpoint to deploy it as a service.
* The third part consists of actually testing in local system

**Stage 1:**

In this stage the data is collected from kaggle.com.

**Stage 2:**

In this stage we have started developing in deep learning with the help of RNN (recurrent neural network) model in which we are using LSTM (long short term memory).

# Stage 3: Indian Food 101

In this stage we have deployed a model using flask.

**Productization:**

Once my deep learning model and flask API is ready then I am going to execute it in local machine and checking the functionality of the model. If the working of the model is well enough only then we will be deploying it into the web.

**Test case:**

For the testing of the data I have used a sample amount of ingredients passing through the model and checking the following things:

* Accuracy
* Time for prediction
* Model satisfaction

**Technical Requirements:** The requirements for the model are of following:

1. Google Collab
2. Keras/tensorflow
3. Flask

Q and A:

1. What is RNN ?
2. The RNN stands for recurrent neural network and it is used to maintain the sequential flow of information.
3. What is Keras/tensorflow ?
4. These are the library used in deep learning
5. What is google collab?
6. Online editor for working with GPU
7. What is LSTM ?
8. It stands for long short term memory where it is a combination of multiple layers such as:
   * + 1. Memory layer
       2. Forget layer
       3. Input layer
       4. Output layer

For each and every layer there will be some of the input weight assign to it.