Requirement specification

TITLE:	Complaint Classification and Management using NLP	
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1. **Hardware Specification**
   - PROCESSOR: 1.8 GHz Intel Core i5
   - MEMORY:8 GB 1600 MHz DDRS
2. **Software Specification**
   - Windows/Ubuntu/Mac
   - Python 3
   - Flask
   - Tensorflow
   - Keras
   - NLTK
   - HTML/CSS/JS
   - Mysql database
   - IBM cloudant database

3. **Functional Requirements**

   Customer login and Authentication System:

   The Customer and Employee can login to the system using his email id and password. The system should authenticate his identity. If the email ID or password is not valid, then the system should notify the customer about the same. If they are valid, they should be able to file his complaint.

   Complaint Filing System:

   The customer should be able to type his query in the text box in the user interface. On click of submit button, the query is passed through the NLP model. The customer can choose to upload an image if needed.

   Complaints Classification System:

   The complaints submitted by the customer are classified by the NLP model to determine to which department the complaints belong to. The information obtained from the model should be updated in the respective relations. As per the department of the complaint, the complaint details are stored in respective cloudant databases. These complaints can be accessed by the employee of the particular department.

Assignment of Complaints to Employees:

Each complaint is assigned to an employee belonging to the corresponding department, who will be resolving the issue. They can keep working on the issue and update the status as well.

Complaint tracking system:

The customer can keep track of the status of the complaint. The employees should be able to change the status of the complaint as 'resolved', once the issue is solved. The corresponding customer should also be able to view the update.

Customer notification System:

Once the complaint is resolved, the customer should be notified about the same through email so that the customer is kept informed.

Customer feedback survey:

Once the customer is notified that their complaint has been resolved, the customer should fill a feedback form which will have various fields to analyse the service provided by the employee.