**1. Additional Features Testing**

**1.1 Data Backup**

**1.1.1 Data Backup**

| It allows the administrator to backup all the current data for the system and save it as a zip file for the administrator to download. |
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**1.2 Report Analysis**

The Patient Report Analysis feature provides detailed statistical and analytical insights into the patient data stored in the hospital system. This feature is designed to assist hospital staff, researchers, and administrators in better understanding patient demographics, diagnoses, treatments, and trends. Below are the descriptions for each functionality.

**1.2.1 Age Distribution of Patients**

| **Interface:** | It will show the age distributions of all our patients. |
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**1.2.2 Diagnosis Distributions of Patients**

| It shows the most common diagnosis of our patient in the hospital. |
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**1.2.3 Gender distribution of Patients**

| It show gender distributions of our patients |
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**1.2.4 Common Treatments Distributions**

| It show the distribution of the most common treatment in our hospital |
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**1.2.5 Average Age by Diagnosis**

| This show the average age that people will be diagnosed with certain diseases, can be used for research in the future for the doctors |
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**1.3 Leave Request Management**

Staff now can apply for leave and this will need to wait for approval from the administrator side. If the doctor applies for leave, if approved that day will be unavailable for booking for the patient.

**1.3.1 Staff Apply Leave**

| Interface for applying leave. | **Apply for Leave:**    **View My Leave Requests:**    Show all the leave requests that the user has applied before. |
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**1.3.2 Administrator Manage Leave Request**

|  | **View Pending Leave Requests:**    **Approve or Decline Leave Requests:**    The administrator can approve or decline leave requests made by the staff. If approved by the doctor, then when the patient books or views the appointment slot, the day the doctor applied for leave won't be available for booking. |
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**1.4 Hashing Password**

| In the Staff\_List.csv and Patient\_List.csv, the password will be hashed when they have just created an account or when they change their password. This adds an additional layer of security to our system. |
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