

# **PROJECT REPORT**

## **Analytics for Hospitals Health-Care Data**

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**Batch:** B7-1A3E

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# CHAPTER-1

## INTRODUCTION

### PROJECT OVERVIEW:

Hospital currently uses a manual system for the management and maintenance of critical information. The current systems require numerous paper forms, with data stores spreads throughout the hospital management infrastructure. Often information is incomplete, or does not follow management standard. Forms are often lost in transit between departments requiring a comprehensive auditing process to ensure that no vital information is lost. Multiple copies of the same information exist in the hospital and may lead to inconsistencies in data in various data stores.

A significant part of the operation of any hospital involves that acquisition, management and timely retrieval of great volumes of information. This information typically involves; patient personal information and medical history, staff information and ward scheduling, staff scheduling and various list of other faculties. All of this information must be managed in an efficient and cost wise fashion so that an institution's resources may be effectively utilized HMS will automate the management of the hospital making it more efficient and error free. It aims at standardizing data, consolidating data ensuring data integrity and error free. It aims at standardizing data, consolidating data ensuring data integrity and reducing inconsistencies.

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## **PURPOSE:**

Health care analytics uses data analysis to improve health care administration and patient care. As much as data has revolutionized the financial, marketing, and tech industries so too has it profoundly altered the field of health care. Today, health care analytics is used for everything from providing business insights to refining diagnostic tools to improving patient care.

Here, you will find out more about what health analytics is, learn about its benefits for both health care administrators and patients, as well as how you can get started in this exciting new career opportunity. At the end of the article, you will find suggested online courses specifically designed to teach both data analytics and health care analytics.

Health care analytics is a subset of data analytics that uses both historic and current data to produce actionable insights, improve decision making, and optimize outcomes within the health care industry. Health care analytics is not only used to benefit health care organizations but also to improve the patient experience and health outcomes.

The health care industry is awash with valuable data in the form of detailed records. Industry regulations stipulate that health care providers must retain many of these records for a set period of time.

This means that health care has become a site of interest for those working with large pools of unstructured data. As a still-developing field, cloud data analytics in health care offers the potential to reduce operation costs, improve efficiency, and treat patients.

## **CHAPTER-2**

### **LITERATURE SURVEY**

A systematic literature review of researchers and healthcare professionals' attitudes towards the secondary use and sharing of health administrative and clinical trial data was conducted using electronic data searching. Eligible articles included those reporting qualitative or quantitative original research and published in English. No restrictions were placed on publication dates, study design, or disease setting. Two authors were involved in all stages of the review process conflicts were resolved by consensus. Data was extracted independently using a pre-piloted data extraction template. Quality and bias were assessed using the Qual System criteria for qualitative studies. Eighteen eligible articles were identified, and articles were categorized into four key themes: barriers, facilitators, access, and ownership 14 subthemes were identified.

While respondents were generally supportive of data sharing, concerns were expressed about access to data, data storage infrastructure, and consent. Perceptions of data ownership and acknowledgement, trust, and policy frameworks influenced sharing practice, as did age, discipline, professional focus, and world region. Young researchers were less willing to share data; they were willing to share in circumstances where they were acknowledged. While there is a general consensus that increased data sharing in health is beneficial to the wider scientific community, substantial barriers remain.

Sl. no	Title	Author	Year of publication	Problem identification	Techniques used	Drawbacks
1	Big data analytics: Understanding it capabilities and potential benefits for healthcare organizations.	Yinchuan Wang, et.al.,	February 2016	Our findings will help healthcare organizations understand the big data analytics Capabilities and potential benefits.	Apache	To address this lack, this study examines the historical development, architectural design, and component Functionalities of big data analytics
2	Big data analytic solution for intelligent Health care management	Alejandro Bal dominos, et.al.,	March 2017	The users to help able to see understand the valuable information provided by data care, the visual analytics	Apache spark, Mongo DB	Big data can also pose risk and Undermine pose doctors
3	Analysis of healthcare big data.	Zhihan Lv, et.al.,	March 2020	Hospitalization cost, and the insured population all show a Trend of increasing year by year	Hadoop	The hospitalization costs show a trend of increasing year by year in recent years
4	Healthcare analytics in Era: A survey	Mohammad zunnunkhan, et.al.	March 2019	It helps new data and security models for measuring security & Quality of data using health care environment	Machine learning	Data sets can gain unwanted attention from hackers and important Information can be leaked to competitors
5	A Framework for Data Analytics-Based Healthcare Systems.	V. Muneesaran, et.al.	February 2021	Data analytics is becoming a future escalating tool of all industries including medicine, robotics	Generic XML	The term data is unavoidable and certainly, nothing is possible Without its usage

## References

1. Safran C, Bloomrosen M, Hammond WE, Labkoff SE, Markel-Fox S, Tang P, et al., Toward a national framework for the secondary use of health data: an American Medical Informatics Association white paper. J AmMed Infor Assoc. 2007
2. Blumenthal D. Wiring the health system--origins and provisions of a new federal program. New England Journal of Medicine
3. Blumenthal D. Implementation of the federal health information technology initiative. New England Journal of Medicine.
4. Miller K, Big Data Analytics in Biomedical Research, Biomedical Computation Review.
5. Davenport TH and Harris JG, Competing on Analytics: The New Science of Winning. 2007, Cambridge, MA: Harvard Business School Press.
6. Anonymous, The value of analytics in healthcare - From insights to outcomes. 2012

## Problem Statement Definition

- ❖ The aim is to accurately predict the Length of Stay for each patient on case by case basis so that the Hospitals can use this information for optimal resource allocation and better functioning.
- ❖ The length of stay is divided into 11 different classes ranging from 0-10 days to more than 100 days.
- ❖ Collection dataset.
- ❖ Upload the dataset into cognos
- ❖ Open the properties-data module.

- ❖ If null value is present in character field use mode method.
- ❖ If the null value is present in continuous field use average or medium.
- ❖ Create conclusion using summary.

#### PROBLEM STATEMENT - 1



#### PROBLEM STATEMENT - 2



#### PROBLEM STATEMENT - 3



#### PROBLEM STATEMENT - 4



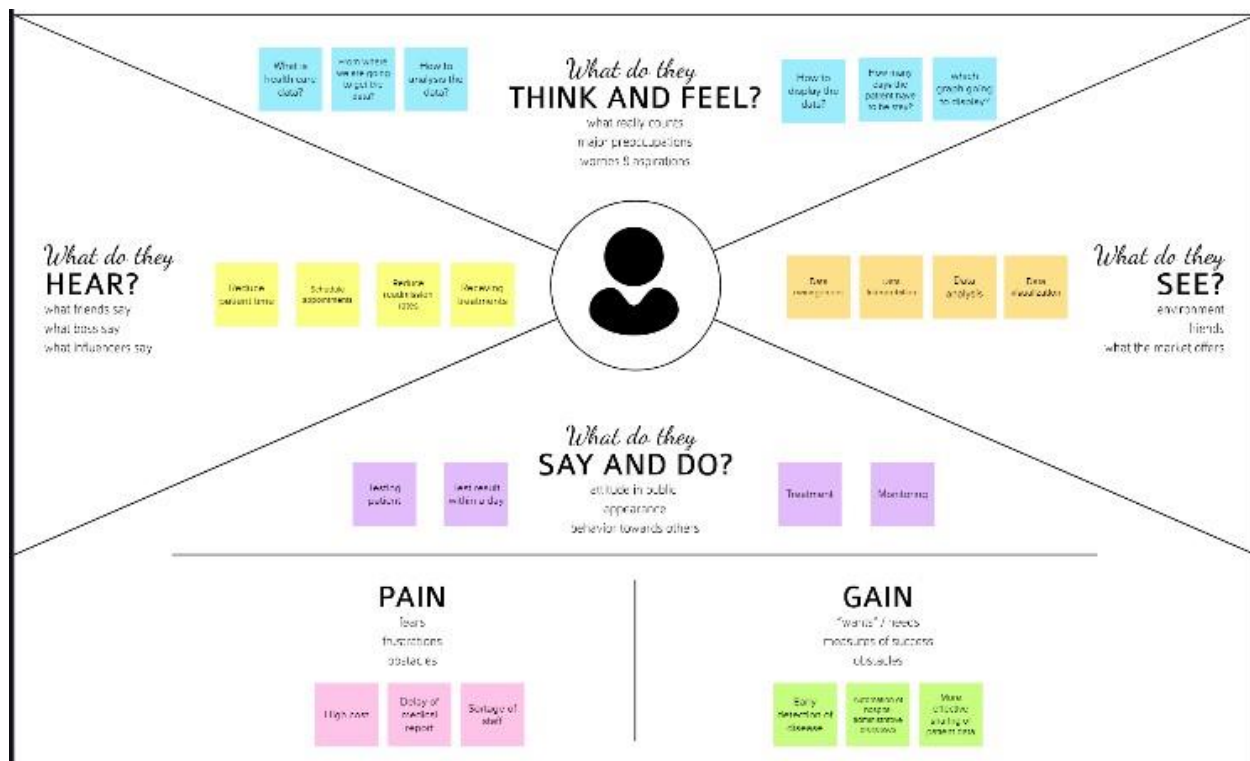


# CHAPTER-3

## IDEATION & PROPOSED SOLUTION

### EMPATHY MAP CANVAS


- ❖ An empathy map is a tool which aids in understanding another person's perspective.
- ❖ Empathy maps have up until now not been used in a medical education setting.
- ❖ Objective: To assess the attitudes towards, applicability and usefulness of empathy maps as part of medical student's communication skills training.



# Ideation & Brainstorming

To try to solve a problem or come up with new ideas by having a discussion that includes all members of a group to discuss a problem or issue and suggest solutions and ideas.

Template



## Brainstorm & idea prioritization

Use this template in your own brainstorming sessions so your team can unleash their imagination and start shaping concepts even if you're not sitting in the same room.

10 minutes to prepare  
1 hour to collaborate  
2-8 people recommended

**Before you collaborate**

A little bit of preparation goes a long way with this session. Here's what you need to do to get going.

10 minutes

- Team gathering**  
Define who should participate in the session and send an invite. Share relevant information or pre-work ahead.
- Set the goal**  
Think about the problem you'll be focusing on solving in the brainstorming session.
- Learn how to use the facilitation tools**  
Use the Facilitation Superpowers to run a happy and productive session.

[Open article](#)

**1 Define your problem statement**

What problem are you trying to solve? Frame your problem as a How Might We statement. This will be the focus of your brainstorm.

5 minutes

**PROBLEM**  
How might we analyse data sets to allocate beds for patients by efficiently utilizing the resources

**PROBLEM**  
How might we get the data about the availability of the patients requirement

**PROBLEM**  
How might we analyse the need for the patients

**Key rules of brainstorming**

To run a smooth and productive session.

- Stay in topic.
- Defer judgment.
- Go for volume.
- Encourage wild ideas.
- Listen to others.
- If possible, be visual.

RAGUVARMAN K

Used in banking industry	Can handle customers easily	User Friendly
More training	Used in more than 30 languages	Detect Spelling mistakes
Can Use Voices	Easily Accessible	Clarity on thoughts

VEERAMANI M

Time Saving	Real time application	Limited number of queries
Used in banking sector	Has clear user guide	Improve accuracy
Good user interaction	Easily Accessible	Clarity on solutions

SATHISH K

Data Entry	Interactive Settings	Limited number of queries
Quick launch	Has clear user guide	Feasible
Test analysis	Secure	Private

UDITH KUMAR E

Efficient	Solve complex problems	Limited number of queries
Clarity	Solution in step by step process	Feasible
Test analysis	Secure	Any Documents

## **Proposed Solution**

The length of the stay can be predicted using either Random forest or Decision Tree for more accuracy. Certain parameters like age, stage of the diseases, disease diagnosis, severity of illness, type of admission, facilities allocated, etc., are used for prediction. IBM Cognos will be used for data analytics.

The model will be trained using collab It predicts the length of stay (LOS) of the patients with more accuracy. As a result proper resources and therapy can be provided. Patients can get proper treatment and better medical care than before which helps them for their faster recovery. So the prediction minimizes the overflow of patients and helps in resource management and optimize their resource utilization. Hence this leads to faster recovery and lower the expenses for treatment. It improves the trust in hospital management.

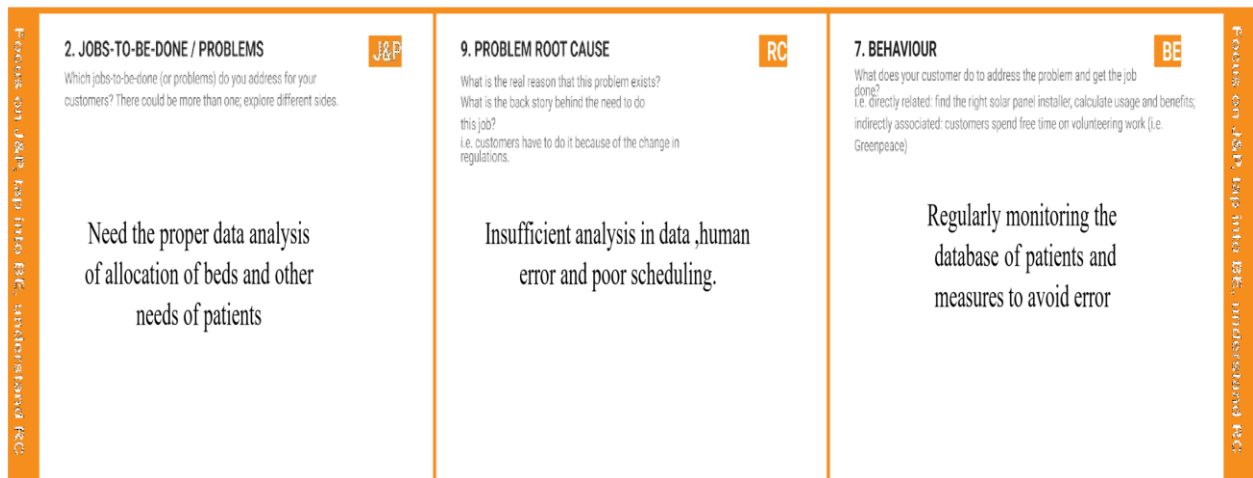
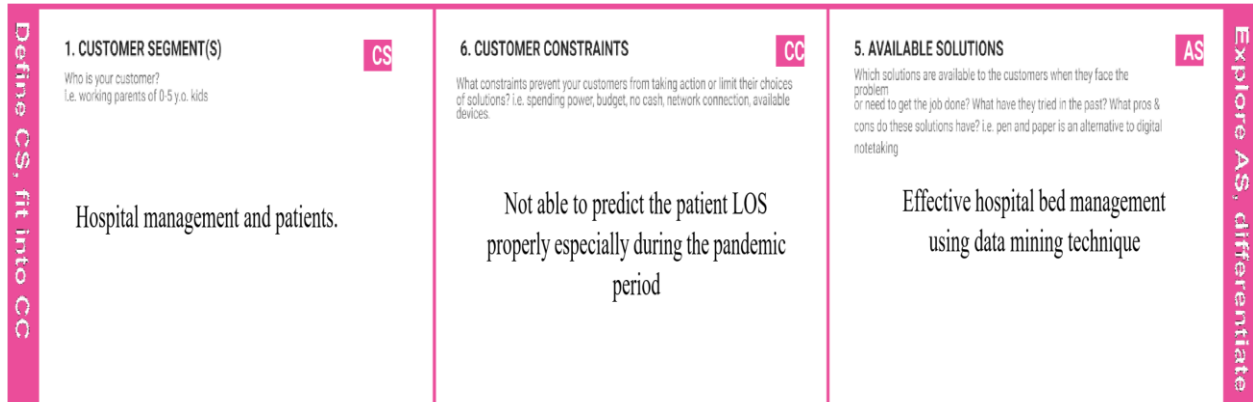
It avoids the major risk of spreading infection among the hospital staff. This leads to overall safety of hospital staff and patients. Resource consumption is optimized. This model can be used by all government hospitals, private hospitals, and this model is also trained with the real world hospital survey for better prediction small clinics.

Length of the stay will be predicted with more accuracy. This model predicts the length of the stay for all kinds of patients and predicts with more accuracy.

Sl.No	Parameter	Description
1	Problem Statement (Problem to be solved)	To predict the length of stay of patients and accommodation
2	Idea / Solution description	The length of stay can be predicted using either Fuzzy logic or Tree bagger algorithms. Along with the algorithm certain parameters like age, stage of disease, progression, etc., are used for prediction. IBM Cognos is used for analytics purposes.
3	Novelty / Uniqueness	It predicts the result with more accuracy using which overstay can be reduced. Proper resources and therapy can be provided.
4	Social Impact / Customer Satisfaction	Patients can get better treatment and care than before. Length of stay prediction minimizes the overflow of patients therefore hospital resource management and utilization will be maximized. Reduces expense for treatment
5	Business Model (Revenue Model)	<ul style="list-style-type: none"> <li>• This system can be used in all government hospitals, private hospitals, and even small clinics.</li> <li>• Activities – Length of stay prediction.</li> <li>• Key Resource – Medical records. Bed consumption is low.</li> </ul>
6	Scalability of the Solution	This model will predict the length of stay of all kinds of patients.

## **Problem Solution fit**

- ❖ The Problem-Solution Fit simply means that you have found a problem with your customer and that the solution you have realized for it actually solves the customer's problem
- ❖ In an age where medical science has made noteworthy advancements, inefficiencies and healthcare errors are still persistent because of the healthcare industry's traditional technology for management.
- ❖ One specific area of concern is the exchange of patient data in case of patient transfer from one department or hospital to another. Patient record sharing, when done the traditional way, is time-consuming and inefficient and exposes patient information to a breach.
- ❖ To deliver a holistic and satisfactory patient experience, different parties involved in healthcare – doctors, scheme providers, insurance providers, doctors, and patients – should be able to exchange information among themselves securely.



# CHAPTER-4

## REQUIREMENT ANALYSIS

### FUNCTIONAL REQUIREMENT

FR No.	Functional Requirement (Epic)	Sub Requirement (Story/ Sub-Task)
FR-1	User Registration	Registration through Form Registration through Gmail
FR-2	User Confirmation	Confirmation via Email Confirmation via Message
FR-3	Interoperability	Dashboard helps to share the patient's information interoperable to the hospitals in timely manner.
FR-4	Accuracy	Dashboard helps predict the patient's Health risks accurately based on LOS (Length of Stay).
FR-5	Compliance	The compliance of a dashboard is like to use very interactively in real time-by the hospitals.
FR-6	Concise	These dashboards are clear, intuitive, and customizable and interactive in manner.

## NON-FUNCTIONAL REQUIREMENT

FR No.	Non-Functional Requirement	Description
NFR-1	Usability	This Dashboards are designed to offer a comprehensive overview of patient's LOS, and do so through the use of data visualization tools like charts and graphs.
NFR-2	Security	The Dashboard helps to indicate the current threat level to the Hospitals; an indication of events and incidents that have occurred; a record of authentication errors; unauthorized access
NFR-3	Reliability	This dashboard will be consistent and reliable to the users and helps the user to use in effective, efficient and reliable manner.
NFR-4	Performance	This dashboard can scan the backend users and analyzing the frequency in which they visit the dashboard helps understand how useful and helpful the data displayed is for tasks.

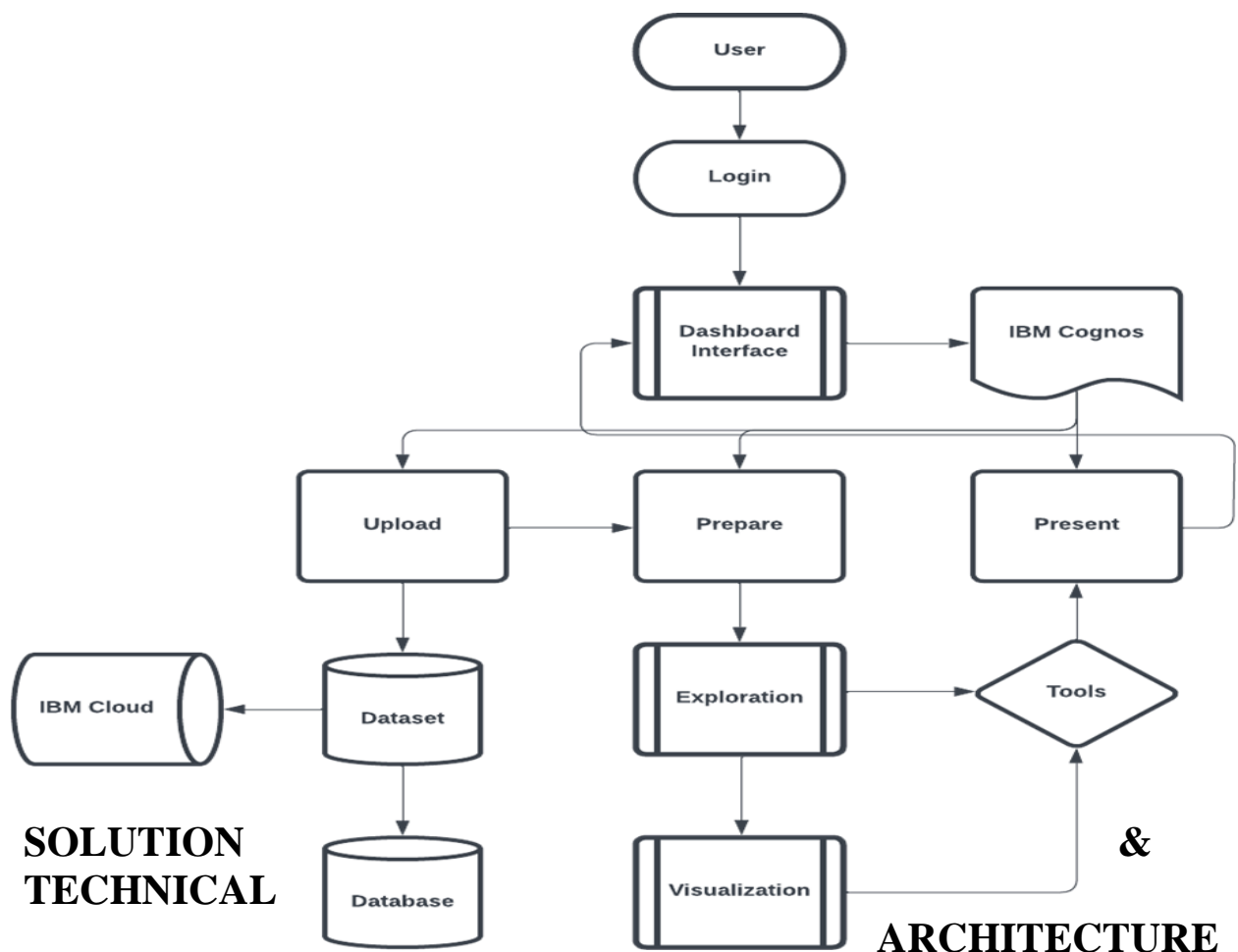


# CHAPTER-5

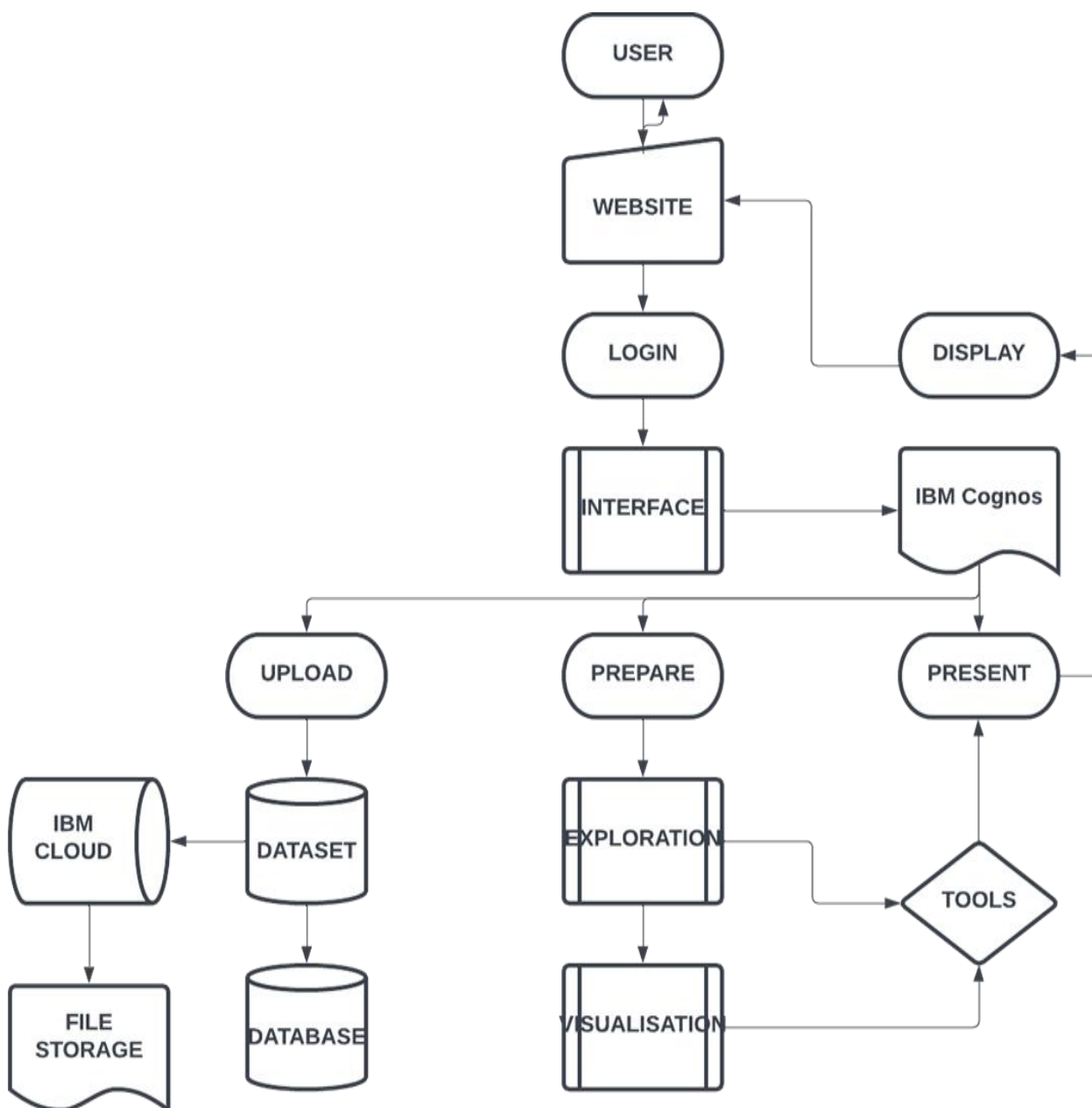
## PROJECT DESIGN

### Data Flow Diagrams

A data flow diagram shows the way information flows through a process or system. It includes data inputs and outputs, data stores, and the various sub processes the data moves through. DFDs are built using standardized symbols and notation to describe various entities and their relationships.



- Solution Architects are most similar to project managers, ensuring that all parties, including stakeholders, are on the same page and moving in the right direction at all stages.
- Technical architects manage all activities leading to the successful implementation of a new application.



## User Stories

S.NO	Functional Requirements	User Story Number	Tasks	Acceptance Criteria	Priority	Release
1	Data Gathering	1	Gathering Data	Using API	High	Sprint1
2	Pre-processing	2	Cleaning the data in proper format	Cleaned Data	High	Sprint 1
3	Data Exploration	3	Explore the data	Display data in graph	High	Sprint1
4	Dashboard	4	Creating various chart	Intractive Dashboard	High	Sprint 2
5	Reports	5	Creating report for various field	Intractive Report	High	Sprint 3
6	Story	6	Creating Animation Using picture	Various animation and slides	High	Sprint 4
7	Web Application	7	Cognos Embeded Web application	Intractive Web Application	High	Sprint 4

# CHAPTER-6

## PROJECT PLANNING & SCHEDULING

### 6.1SPRINT PLANNING & ESTIMATION

Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Members
<b>Sprint-1</b>	Registration	USN-1	As a health care provider I can create account in IBM cloud and the data are collected.	20	High	Raguvarman K Veeramani M
<b>Sprint-2</b>	Analyze	USN-2	As a health care provider all the data that are collected is cleaned and uploaded in the database or IBM cloud.	20	<b>Medium</b>	Sathish K Udith Kumar E
<b>Sprint-3</b>	Dashboard	USN-3	As a health care provider I can use my account in my dashboard for uploading dataset.	10	Medium	Raguvarman K Veeramani M
<b>Sprint-4</b>	Visualization	USN-4	As a health care provider I can prepare data for Visualization	<b>10</b>	High	Sathish K Udith Kumar E
<b>Sprint-4</b>	Visualization	USN-5	As a health care provider I can present data in my dashboard.	<b>10</b>	High	Raguvarman K Veeramani M
<b>Sprint-4</b>	Prediction	USN-6	As a health care provider I can predict the length of stay	<b>10</b>	High	Sathish K Udith Kumar E

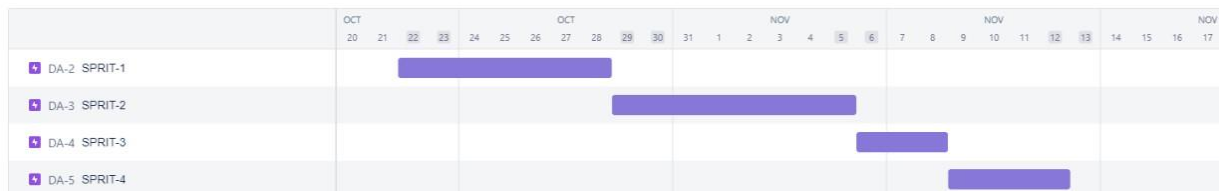
## 6.2 Sprint Delivery Schedule

Sprint	Total Story Points	Duration	Sprint Start Date	Sprint End Date (Planned)	Story Points Completed (as on Planned End Date)	Sprint Release Date(Actual)
Sprint-1	20	6 Days	25 Oct 2022	29 Oct 2022	20	30 Oct 2022
Sprint-2	20	6 Days	31 Oct 2022	05 Nov 2022	20	05 Nov 2022
Sprint-3	20	6 Days	07 Nov 2022	12 Nov 2022	20	12 Nov 2022
Sprint-4	20	6 Days	14 Nov 2022	19 Nov 2022	20	19 Nov 2022

## Reports from JIRA

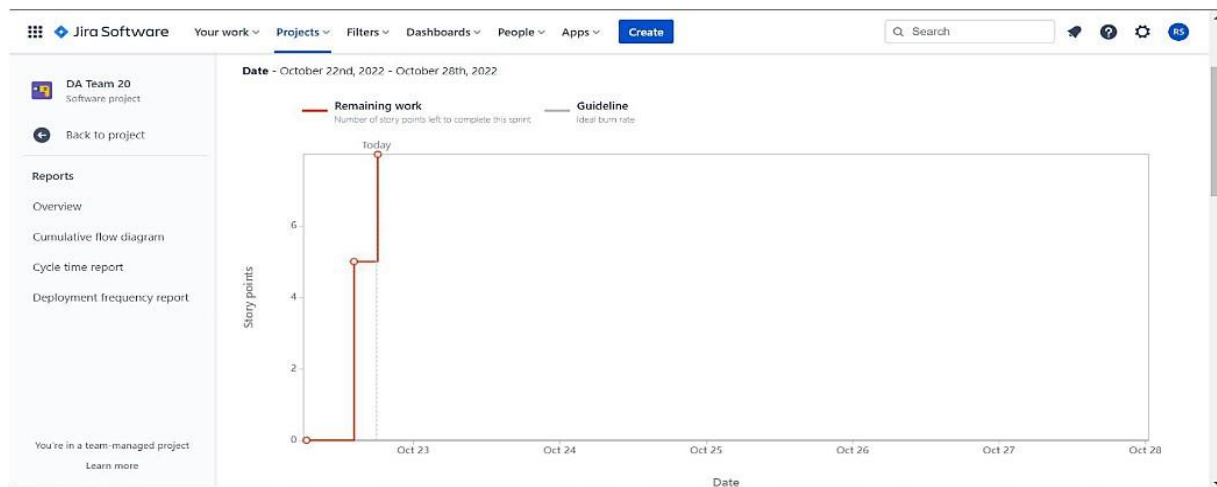
### Road Map:

A roadmap is a strategic plan that defines a goal or desired outcome and includes the major steps or milestones needed to reach it. It also serves as a communication tool, a high-level document that helps articulate strategic thinking the why behind both the goal and the plan for getting there.



## Kaban Board:

A kaban board is an agile project management tool designed to help visualize work, limit work-in-progress, and maximize efficiency (or flow). It can help both agile and DevOps teams establish order in their daily work.

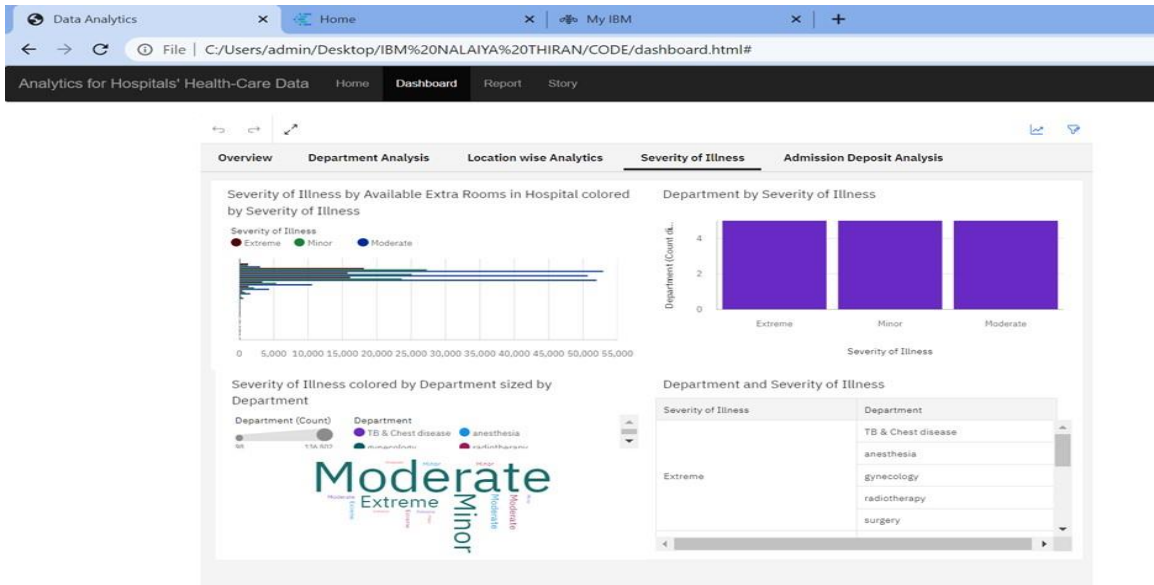


## CHAPTER-7

### CODING & SOLUTIONING

#### 7.1 Feature 1

- ❖ Fetched the data from DB2 database.
- ❖ Creating responsive dashboard.
- ❖ Inserting filter for each chart
- ❖ Creating report
- ❖ Created reports using multiple graphs and charts

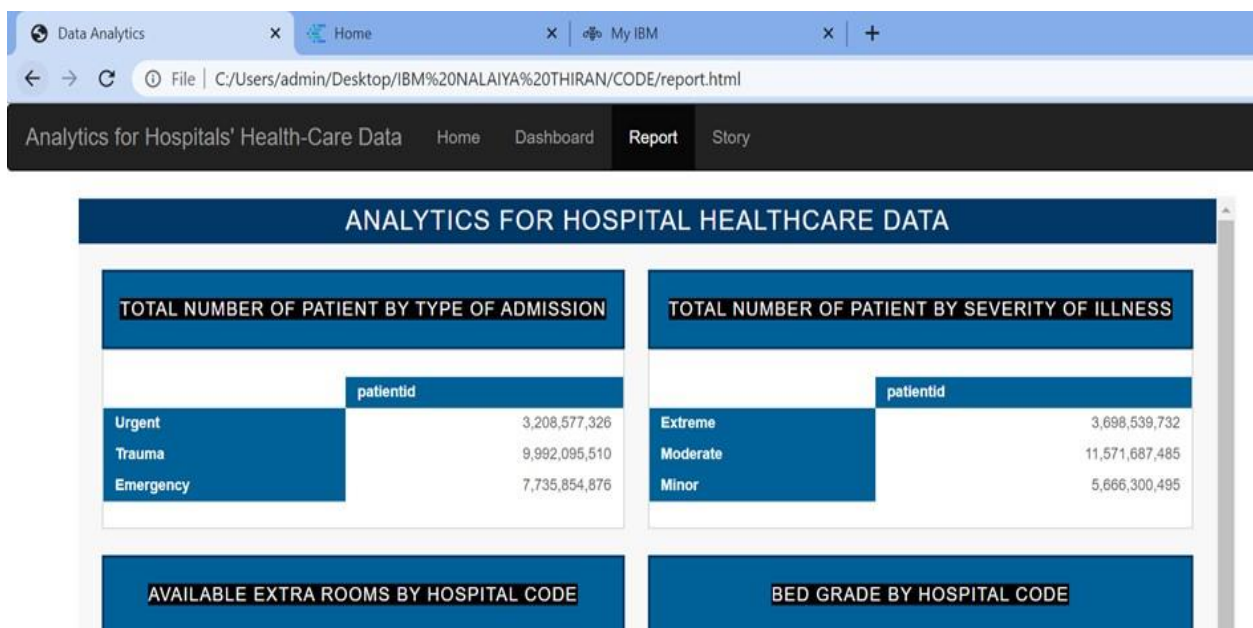


## Feature 2

- Creating stories and performed.
- Perform animation render image from website.
- Included graphs and charts.
- Creating web application using bootstrap.
- Embedded the cognos with web application.

## Database Schema

- Case id
- Hospital code
- Hospital type code
- City Code Hospital
- Hospital region code
- Available Extra Rooms in Hospital
- Department
- Ward Type
- Ward Facility Code
- Bed Grade
- Patient id
- City Code Patient
- Type of Admission
- Severity of Illness





# CHAPTER-8

## TESTING

### 8.1 Test Cases

- ❖ Verify user is able to see Home page.
- ❖ Verify user is able to see Dashboard page.
- ❖ Verify user is able to navigate to Report page.
- ❖ Verify filters are working

Resolution	Severity 1	Severity 2	Severity 3	Severity 4	Subtotal
By Design	10	4	2	3	20
Duplicate	1	0	3	0	4
External	2	3	0	1	6
Fixed	11	2	4	20	37
Not Reproduced	0	0	1	0	1
Skipped	0	0	1	1	2
Won't Fix	0	5	2	1	8
Totals	24	14	13	26	77

## User Acceptance Testing

### 1.Purpose of Document

The purpose of this document is to briefly explain the test coverage and open issues of the [ProductName] project at the time of the release to User Acceptance Testing (UAT).

### 2.Defect Analysis

This report shows the number of resolved or closed bugs at each severity level, and how they were resolved

### 3.Test Case Analysis

This report shows the number of test cases that have passed, failed and understand



Section	Total Cases	Not Tested	Fail	Pass
Print Engine	7	0	0	7
Client Application	51	0	0	51
Security	2	0	0	2
Outsource Shipping	3	0	0	3
Exception Reporting	9	0	0	9
Final Report Output	4	0	0	4
Version Control	2	0	0	2


## CHAPTER-9

### RESULTS

#### Model Performance Testing:

Project team shall fill the following information in model performance testing template.



S.No.	Parameter	Screenshot/ Values
1.	Dashboard design	<p>Number of Visualizations / Graphs – 22 Number of tabs – 5</p> 
2.	Data Responsiveness	<p>Data's will dynamically changed and graph also changed.</p> 


3.	Amount Data to Rendered (DB2 Metrics)	<p>Number of rows read – 318438 Number of rows loaded – 318438 Number of rows rejected – 0</p> 
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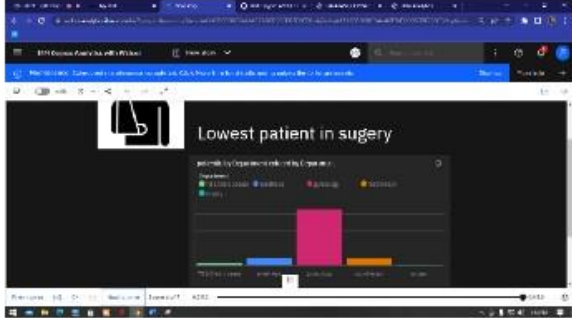
### Performance Metrics

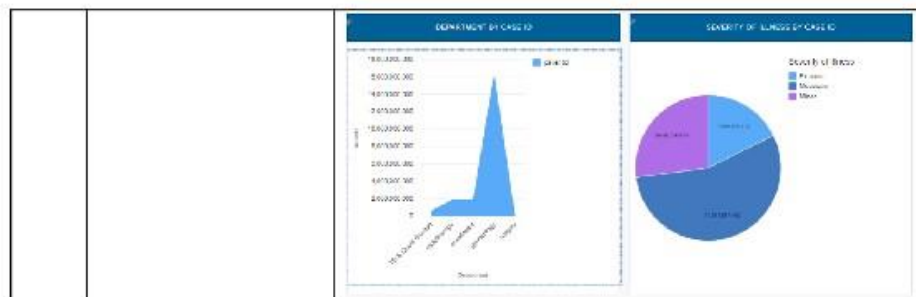
### Model Performance Testing:

Project team shall fill the following information in model performance testing template.

S.No.	Parameter	Screenshot/ Values
1.	Dashboard design	<p>Number of Visualizations / Graphs – 22 Number of tabs – 5</p>  <p>The screenshot shows a dashboard with a top navigation bar, a left sidebar with tabs, and a main content area. The main area contains several cards and charts. One card displays '318K' and another '1.03M'. There are two bar charts and a donut chart. The dashboard is titled 'Dashboard' and has a subtitle 'Dashboard Design'.</p>
2.	Data Responsiveness	<p>Data's will dynamically changed and graph also changed.</p>  <p>The screenshot shows a dashboard with a top navigation bar, a left sidebar with tabs, and a main content area. The main area contains several cards and charts. One card displays '318K' and another '1.03M'. There are two bar charts and a donut chart. The dashboard is titled 'Dashboard' and has a subtitle 'Dashboard Design'.</p>

3.	Amount Data to Rendered (DB2 Metrics)	<p>Number of rows read – 318438 Number of rows loaded – 318438 Number of rows rejected – 0</p>  <p>The screenshot shows a dashboard with a top navigation bar, a left sidebar with tabs, and a main content area. The main area contains several cards and charts. One card displays '318K' and another '1.03M'. There are two bar charts and a donut chart. The dashboard is titled 'Dashboard' and has a subtitle 'Dashboard Design'.</p>
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4.	Utilization of Data Filters	<p>We created filters for Dashboards which is perfectly working.</p> 
5.	Effective User Story	<p>Number of Scene Added – 7 Animations are perfectly displayed. Images are perfectly rendered.</p> 
6.	Descriptive Reports	Number of Visualizations / Graphs – 6



# **CHAPTER 10**

## **ADVANTAGES AND DISADVANTAGES**

### **ADVANTAGES**

- Cost-effective use of technology
- Improved project management
- Sustaining the improvements in the result
- Boosting hospital capacity
- Enhance the quality and efficiency of healthcare
- benefit areas like emergency preparation, charting, administration, compliance, and financial management.
- Analyzing clinical data to improve medical research
- Using patient data to improve health outcomes

### **DISADVANTAGES**

- Privacy
- Replacing Doctors
- Frustration with poor implementation.
- Cybersecurity risks
- Healthcare Regulatory Changes.
- Healthcare Staffing Shortages

# **CHAPTER-11**

## **CONCLUSION**

The impact of data analytics in healthcare has already made a substantial difference in the ability of healthcare providers to offer patients high-quality care in an efficient, cost-effective manner. However, the role of data analytics in improving patient outcomes and healthcare processes continues to grow and expand as more types of data become available and new tools are developed that make the results of the analytics clear and easy for healthcare professionals to access.

Realizing the potential of data analytics to transform the healthcare industry begins by understanding how the technology can be applied to address healthcare providers' challenges, including staff recruitment and utilization, operational efficiencies, and enhanced patient experiences. Patient-centered healthcare depends on knowing what patients want and need. Data analytics holds the key to unlocking this vital information.

# **CHAPTER-12**

## **FUTURE SCOPE**

The AI will play a significant role in data analytics in healthcare for the next decade. For example, the field of AI-enabled clinical decision support is just emerging. This type of support can compare patients who fit similar profiles within a system, then it can alert doctors to trends in data that may have been

overlooked. The use of big data in healthcare will include testing for drug interactions that small studies are unlikely to catch and prevent patients from taking harmful drug combinations.

Decisions made by physicians, like what test or treatments to give a particular patient, makeup 80-90% of all healthcare spending, so using artificial intelligence to make more educated decisions will bring down healthcare costs. It's crucial to have informed leaders at the vanguard of these innovations in healthcare.

## **CHAPTER-13**

### **APPENDIX**

#### **SOURCE CODE**

##### **HOME PAGE**

```
<!DOCTYPE html>
```

```
<html lang="en">
```

```
<head>
```

```
<title>Data Analytics</title>
```

```
<meta charset="utf-8">
```

```
<meta name="viewport" content="width=device-width, initial-scale=1">
```

```

<link rel="stylesheet"

href="https://maxcdn.bootstrapcdn.com/bootstrap/3.4.1/css/bootstrap.min.css">
<script
src="https://ajax.googleapis.com/ajax/libs/jquery/3.6.0/jquery.min.js"></script>

<script
src="https://maxcdn.bootstrapcdn.com/bootstrap/3.4.1/js/bootstrap.min.js"></scri
pt>

</head>

<body>

<nav class="navbar navbar-inverse">

<div class="container-fluid">

<div class="navbar-header">

<a class="navbar-brand" href="#">Analytics for Hospitals' Health-Care Data</a>
</div>

<ul class="nav navbar-nav">

<li class="active"><a href="#">Home</a></li>

<li><a href="dashboard.html">Dashboard</a></li>

<li><a href="report.html">Report</a></li>

<li><a href="story.html">Story</a></li>

</ul>

</div>

</nav>

```



```
<div class="jumbotron">
```

```
<center> <h4><i><b>Team ID: PNT2022TMID28702 </b></i></h4></center>
```

```
</div>
```

```
<table class="table table-bordered">
```

```
<tbody>
```

```
<tr>
```

```
<td>Team Leader</td>
```

```
<td>RaguvarmanS</td>
```

```
</tr>
```

```
<tr>
```

```
<td>Team member</td>
```

```
<td>Veeramani M</td>
```

```
</tr>
```

```
<tr>
```

```
<td>Team member</td>
```

```
<td>Sathish K</td>
```

```
</tr>
```

```
<tr>
```

```
<td>Team member</td>
```

<td>Udith kumar E </td>

</tr>

</tbody>

</table>

</body>

</html>

## **Index html**

<!DOCTYPE

<html>

<html lang="en">

<head>

<title>Data Analytics</title>

<meta charset="utf-8">

<meta name="viewport" content="width=device-width, initial-scale=1">

<link rel="stylesheet"

href="https://maxcdn.bootstrapcdn.com/bootstrap/3.4.1/css/boot  
strap.min.css">

<script  
src="https://ajax.googleapis.com/ajax/libs/jquery/3.6.0/jquery.mi  
n.js"></script>

<script  
src="https://maxcdn.bootstrapcdn.com/bootstrap/3.4.1/js/bootstr  
ap.min.js"></scr ipt>

</head>

<body>

```

<nav class="navbar navbar-inverse">
    <div
class="container-
fluid">    <div
class="navbar-
header">

    <a class="navbar-brand" href="#">Analytics for
    Hospitals' Health-Care Data</a>    </div>

<ul class="nav navbar-nav">
<li class="active"><a href="#">Home</a></li>
<li><a href="dashboard.html">Dashboard</a></li>
<li><a href="report.html">Report</a></li>
<li><a href="story.html">Story</a></li>
</ul>
</div>
</nav>

<div class="jumbotron">
<center> <h4><i><b>Team ID : PNT2022TMID37553 </b></i></h4></center>
</div>

<table class="table table-bordered">
<tbody>
<tr>
<td>Team Leader</td>
<td>Raguvarman K </td>
</tr>

```

```

<tr>
<td>Team member</td>
<td> Veeramani M</td>
</tr>
<tr>
<td>Team member</td>
<td>Sathish K </td>
</tr>
<tr>
<td>Team member</td>
<td>Udith kumar E </td>
</tr>
</tbody>
</table>
</body>
</html>

```

## REPORT PAGE

```

<!DOCTYPEhtml>
<html lang="en">
<head>
<title>Data Analytics</title>
<meta charset="utf-8">
<meta name="viewport"content="width=device-width, initial-scale=1">

```

```
<link
rel="stylesheet"href="https://maxcdn.bootstrapcdn.com/bootstrap/3.4.1/css/bootstr
ap.min.css">
```

```
<script
src="https://ajax.googleapis.com/ajax/libs/jquery/3.6.0/jquery.min.js"></script>
```

```
<script
src="https://maxcdn.bootstrapcdn.com/bootstrap/3.4.1/js/bootstrap.min.js"></scrip
t>
```

```
</head>
```

```
<body>
```

```
<nav class="navbar navbar-inverse ">
```

```
<div class="container-fluid">
```

```
<div class="navbar-header">
```

```
<a class="navbar-brand"href="#">Analytics for Hospitals' Health-Care Data</a>
</div>
```

```
<ul class="nav navbar-nav">
```

```
<li><a href="index.html">Home</a></li>
```

```
<li><a href="dashboard.html">Dashboard</a></li>
```

```
<li class="active"><a href="#">Report</a></li>
```

```
<li><a href="story.html">Story</a></li>
```

```
</ul>
```

```
</div>
```

```
</nav>
```

```
<div class="container">
```

```
<iframe
src="https://us1.ca.analytics.ibm.com/bi/?pathRef=.my_folders%2FReport%2FHealth%2BCare%2BData%2BAnalytics%2BReport&closeWindowOnLastView=true&ui_appbar=false&ui_navbar=false&shareMode=embedded&action=run&format=HTML&prompt=false"width="1000" height="900"frameborder="0"gesture="media"
allow="encrypted-media"allowfullscreen=""></iframe> </br>
```

```
</div>
```

```
</body>
```

```
</html>
```

## STORY

```
<!DOCTYPEhtml>
```

```
<html lang="en">
```

```
<head>
```

```
<title>Data Analytics</title>
```

```
<meta charset="utf-8">
```

```
<meta name="viewport"content="width=device-width, initial-scale=1">
```

```
<link
rel="stylesheet"href="https://maxcdn.bootstrapcdn.com/bootstrap/3.4.1/css/bootstrap.min.css">
```

```
<script
src="https://ajax.googleapis.com/ajax/libs/jquery/3.6.0/jquery.min.js"></script>
```

```

<script
src="https://maxcdn.bootstrapcdn.com/bootstrap/3.4.1/js/bootstrap.min.js"></scrip
t>

</head>

<body>

<nav class="navbar navbar-inverse ">

<div class="container-fluid">

<div class="navbar-header">

<a class="navbar-brand"href="#">Analytics for Hospitals' Health-Care Data</a>
</div>

<ul class="nav navbar-nav">

<li><a href="index.html">Home</a></li>

<li><a href="dashboard.html">Dashboard</a></li>

<li><a href="report.html">Report</a></li>

<li class="active"><a href="#">Story</a></li>

</ul>

</div>

</nav>

<div class="container">

<iframe

src="https://us1.ca.analytics.ibm.com/bi/?perspective=story&pathRef=.my_fo
lders%2FStory%2FHealth
%2Bcare%2Bdata%2Banalytics%2Bstory&closeWindowOnLastView=true&

```

```
amp;ui_appbar=false&amp;
ui_navbar=false&amp;shareMode=embedded&amp;action=view&amp;sceneId=m
odel0000001847a5e7043_00 000001&amp;sceneTime=0"width="1000"
height="900"frameborder="0"gesture="media"
allow="encryptedmedia"allowfullscreen=""></iframe>
```

```
</br>
```

```
</div>
```

```
</body>
```

```
</html>
```

## **DASHBOARD PAGE**

```
<!DOCTYPEhtml>
```

```
<html lang="en">
```

```
<head>
```

```
<title>Data Analytics</title>
```

```
<meta charset="utf-8">
```

```
<meta name="viewport"content="width=device-width, initial-scale=1">
```

```
<link
```

```
rel="stylesheet"href="https://maxcdn.bootstrapcdn.com/bootstrap/3.4.1/css/bootstr
ap.min.css">
```



```
<script
src="https://ajax.googleapis.com/ajax/libs/jquery/3.6.0/jquery.min.js"></script>

<script
src="https://maxcdn.bootstrapcdn.com/bootstrap/3.4.1/js/bootstrap.min.js"></scrip
t>

</head>

<body>

<nav class="navbar navbar-inverse ">

<div class="container-fluid">

<div class="navbar-header">

<a class="navbar-brand"href="#">Analytics for Hospitals' Health-Care Data</a>
</div>

<ul class="nav navbar-nav">

<li><a href="index.html">Home</a></li>

<li class="active"><a href="#">Dashboard</a></li>

<li><a href="report.html">Report</a></li>

<li><a href="story.html">Story</a></li>

</ul>
```

</div>

</nav>

<div class="container">

<iframe

src="https://us1.ca.analytics.ibm.com/bi/?perspective=dashboard&pathRef=.  
my\_folders%2FDashboard%

2FHealth%2BCare%2BData%2BAnalytics&closeWindowOnLastView=true  
&ui\_appbar=false&

;ui\_navbar=false&shareMode=embedded&action=view&mode=das  
hboard&subView=mo del0000018476584e12\_00000000"width="1100"

height="600"frameborder="0"gesture="media" allow="encrypted-  
media"allowfullscreen=""></iframe>

</div>

</body>

</html>

**GitHub & Project Demo Links:**

GitHub link: <https://github.com/IBM-EPBL/IBM-Project-50582-1660916966>

Project demo link:

<https://drive.google.com/drive/folders/1zgMrejMvuVh9UAFrSIIDM397qVYA8OPt>