Project Report Format

1.INTRODUCTION

Your heart is one of your body's most important organs. Essentially a pump, the heart is a muscle made up of four chambers separated by valves and divided into two halves. Each half contains one chamber called an atrium and one called a ventricle. The atria (plural for atrium) collect blood, and the ventricles contract to push blood out of the heart. The right half of the heart pumps oxygen-poor blood (blood that has a low amount of oxygen) to the lungs where blood cells can obtain more oxygen. Then, the newly oxygenated blood travels from the lungs into the left atrium and the left ventricle. The left ventricle pumps the newly oxygen-rich blood to the organs and tissues of the body. This oxygen provides your body with energy and is essential to keep your body healthy.

1.1.Project overview

Sudden cardiac arrest is the abrupt loss of heart function, breathing and consciousness. The condition usually results from a problem with your heart's electrical system, which disrupts your heart's pumping action and stops blood flow to your body. Sudden cardiac arrest isn't the same as a heart attack, when blood flow to a part of the heart is blocked. However, a heart attack can sometimes trigger an electrical disturbance that leads to sudden cardiac arrest. If not treated immediately, sudden cardiac arrest can lead to death. Survival is possible with fast, appropriate medical care. Cardiopulmonary resuscitation (CPR), using a defibrillator or even just giving compressions to the chest can improve the chances of survival until emergency workers arrive.

1.2.purpose

A heart arrhythmia is an irregular heartbeat. Heart rhythmproblems occur when the electrical signals that coordinate the heart's beats don't workproperly. The faulty signaling causes the heart to beat too fast, too slowor irregularly. Heart arrhythmias may feel like a fluttering or racing heart and may be harmless. However, some heart arrhythmias may cause bothersome - sometimes even lifethreatening -signs and symptoms. However, sometimes it's normal for a person to have a fast or slow heart rate. For example, the heart rate may increase with exercise or slow down during sleep. Heart arrhythmia treatment may include medications, catheter procedures, implanteddevices or surgery to control or eliminate fast, slow or irregular heartbeats. Aheart- healthy lifestyle can help prevent heart damage that can trigger certain heart arrhythmias.

2.literature survey

Bo Jin, Chao Che et al. (2018) proposed a “Predicting the Risk of Heart Failure With EHR Sequential Data Modeling” model designed by applying neural network. This paper used the electronic health record (EHR) data from real-world datasets related to congestive heart disease to perform the experiment and predict the heart disease before itself. We tend to used one-hot encryption and word vectors to model the diagnosing events and foretold coronary failure events victimization the essential

principles of an extended memory network model. By analyzing the results, we tend to reveal the importance of respecting the sequential nature of clinical records . Aakash Chauhan et al. (2018) presented “Heart Disease Prediction using Evolutionary Rule Learning”. This study eliminates the manual task that additionally helps in extracting the information (data) directly from the electronic records. To generate strong association rules, we have applied frequent pattern growth association mining on patient’s dataset. This will facilitate (help) in decreasing the amount of services and shown that overwhelming majority of the rules helps within the best prediction of coronary sickness . Ashir Javeed, Shijie Zhou et al. (2017) designed “An Intelligent Learning System based on Random Search Algorithm and Optimized Random Forest Model for Improved Heart Disease Detection”. This paper uses random search algorithm (RSA) for factor selection and random forest model for diagnosing the cardiovascular disease. This model is principally optimized for using grid search algorithmic program. Two forms of experiments are used for cardiovascular disease prediction. In the first form, only random forest model is developed and within the second experiment the proposed Random Search Algorithm based random forest model is developed. This methodology is efficient and less complex than conventional random forest model. Comparing to conventional random forest it produces 3.3% higher accuracy. The proposed learning system can help the physicians to improve the quality of heart failure detection .

2.1.Existing problem

Heart disease is even being highlighted as a silent killer which leads to the death of a person without obvious symptoms. The nature of the disease is the cause of growing anxiety about the disease & its consequences. Hence continued efforts are being done to predict the possibility of this deadly disease in prior. So that various tools & techniques are regularly being experimented with to suit the present-day health needs. Machine Learning techniques can be a boon in this regard. Even though heart disease can occur in different forms, there is a common set of core risk factors that influence whether someone will ultimately be at risk for heart disease or not. By collecting the data from various sources, classifying them under suitable headings & finally analysing to extract the desired data we can conclude. This technique can be very well adapted to the do the prediction of heart disease. As the well-known quote says “Prevention is better than cure”, early prediction & its control can be helpful to prevent & decrease the death rates due to heart disease.

2.2.References

[1] Bo Jin ,Chao Che, Zhen Liu, Shulong Zhang, Xiaomeng Yin, And Xiaopeng Wei, “Predicting the Risk of Heart Failure With EHR Sequential Data Modeling” ,IEEE Access 2018.

[2] Aakash Chauhan , Aditya Jain , Purushottam Sharma , Vikas Deep, “Heart Disease Prediction using Evolutionary Rule Learning”, "Computational “International Intelligence Technology” (CICT 2018). and Conference on Communication

[3] Ashir Javeed, Shijie Zhou, Liao Yongjian, Iqbal Qasim, Adeeb Noor, Redhwan Nour4, Samad Wali And Abdul Basit , “An Intelligent Learning System based on Random Search Algorithm and Optimized Random Forest Model for Improved Heart Disease Detection” , IEEE Access 2017.

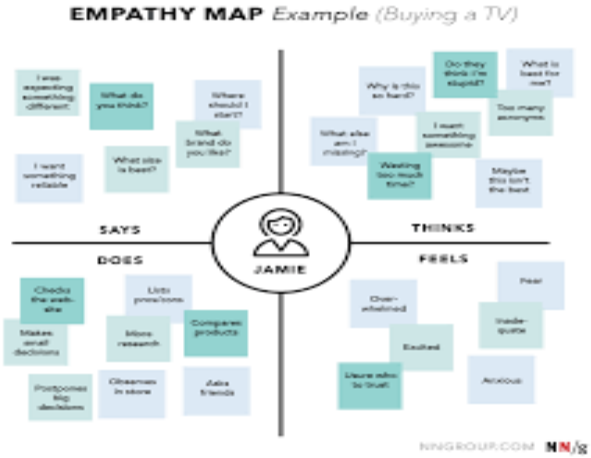
2.3.Problem Statement Definition

Heart disease can be managed effectively with a combination of lifestyle changes, medicine and, in some cases, surgery. With the right treatment, the symptoms of heart disease can be reduced and the functioning of the heart improved. The predicted results can be used to prevent and thus reduce cost for surgical treatment and other expensive. The overall objective of my work will be to predict accurately with few tests and attributes the presence of heart disease. Attributes considered form the primary basis for tests and give accurate results more or less. Many more input attributes can be taken but our goal is to predict with few attributes and faster efficiency the risk of having heart disease. Decisions are often made based on doctors' intuition and experience rather than on the knowledge rich data hidden in the data set and databases. This practice leads to unwanted biases, errors and excessive medical costs which affects the quality of service provided to patients. Data mining holds great potential for the healthcare industry to enable health systems to systematically use data and analytics to identify inefficiencies and best practices that improve care and reduce costs. According to (Wurz & Takala, 2006) the opportunities to improve care and reduce costs concurrently could apply to as muchas 30% of overall healthcare spending. The successful application of data mining in highly visible fields like e-business, marketing and retail has led to its application in other industries and sectors. Among these sectors just discovering is healthcare. The healthcare environment is still „information rich" but „knowledge poor". There is a wealth of data available within the healthcare systems. However, there is a lack of effective analysis tools to discover hidden relationships and trends in the data for African genres.

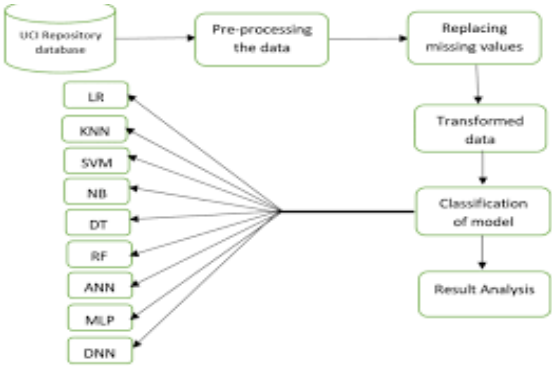
3.IDEATION & PROPOSED SOLUTION

The major challenge in heart disease is its detection. There are instruments available which can predict heart disease but either it are expensive or are not efficient to calculate chance of heart disease in human. Early detection of cardiac diseases can decrease the mortality rate and overall complications. However, it is not possible to monitor patients everyday in all cases accurately and consultation of a patient for 24 hours by a doctor is not available since it requires more sapience, time and expertise. Since we have a good amount of data in today's world, we can use various machine learning algorithms to analyze the data for hidden patterns. The hidden patterns can be used for health diagnosis in medicinal data.

3.1.Empathy Map Canvas



3.2.Ideation & Brainstorming



3.3.Proposed Solution

The health care industries collect huge amounts of data that contain some hidden information, which is useful for making effective decisions. For providing appropriate results and making effective decisions on data, some advanced data mining techniques are used. In this study, a Heart Disease Prediction System (HDPS) is developed using Naives Bayes and Decision Tree algorithms for predicting the risk level of heart disease. The system uses 15 medical parameters such as age, sex, blood pressure, cholesterol, and obesity for prediction. The HDPS predicts the likelihood of patients getting heart disease. It enables significant knowledge.

E.g. Relationships between medical factors related to heart disease and patterns, to be established. We have employed the multilayer perceptron neural network with backpropagation as the training algorithm. The obtained results have illustrated that the designed diagnostic system can effectively predict the risk level of heart diseases.

3.4.Problem Solution fit

For providing appropriate results and making effective decisions on data, some advanced data mining techniques are used. a Heart Disease Prediction System is developed using Naives Bayes and Decision Tree algorithms for predicting the risk level of heart disease. The system uses 15 medical parameters such as age, sex, blood pressure, cholesterol, and obesity for prediction. The HDPS predicts the likelihood of patients getting heart disease. It enables significant knowledge.

4.REQUIREMENT ANALYSIS

4.1.Functional requirement

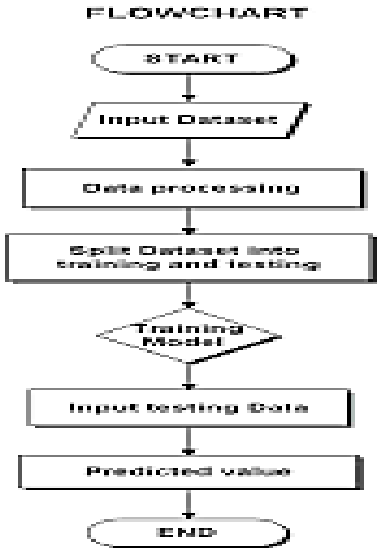
FR.No	**Functional Requirement(Epic)**	**SubRequirement(Story/Sub-Task)**
FR.1	User Registration	Registrations can be done using Email
FR.2	User Confirmation	Registration Confirmation can be se nt through E-mail.
FR.3	Visualizing Data	Data Visualize the presence of heart disease through shboard create dusing IBM Cognos Analytics

Non-Functional requirements

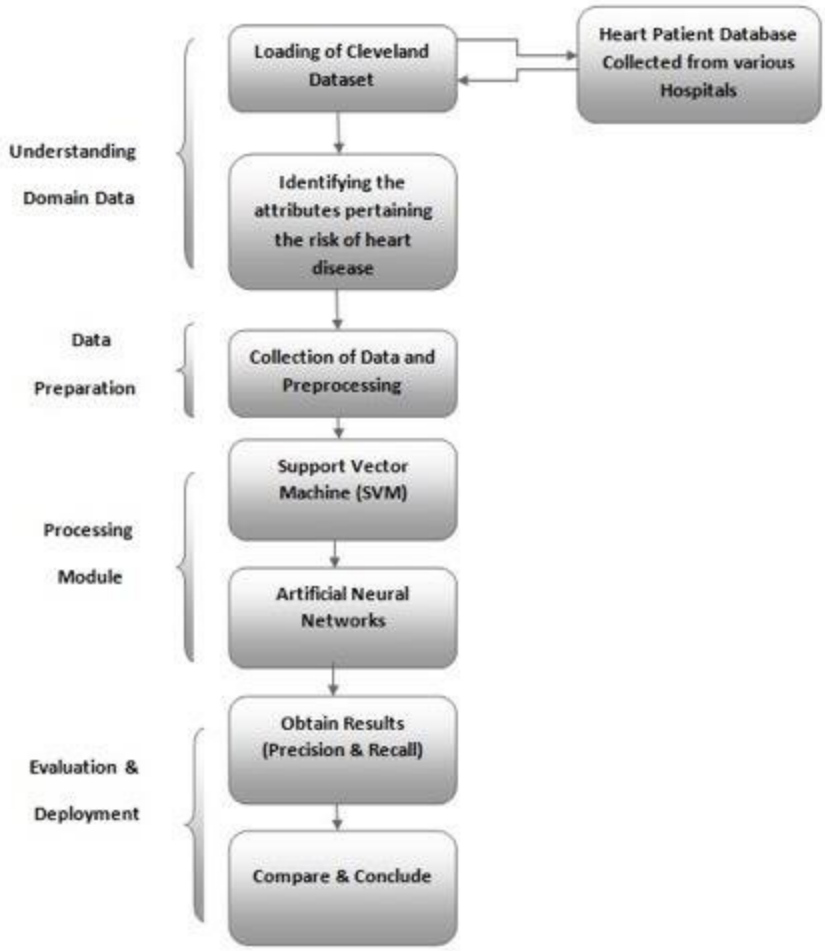
NFR.NO	Non-Functional Requirement	Description
NFR.1	Usability	Simple User Interface with easy understanding
NFR.2	Security	Maintain a secondary/backup dataset User reports are kept safely and remove false dataset
NFR.3	Reliability	Must work without error or minimum error and a ble to work with various dataset

5.PROJECT DESIGN

5.1.Data Flow Diagrams



5.2.Solution & Technical Architecture



5.3.User Stories

- User account will be created in the application.
- User enters the medical records in the dashboard and searchof the requirements.
- User can view the visualizations of trends in the form of graphs and charts for his/her medical records with the dataset trained.
- User can view the accuracy of probability of occurrence of heart disease in the dashboard.

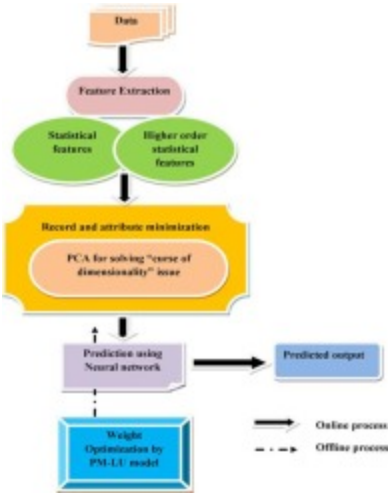
6.PROJECT PLANNING & SCHEDULING

6.1.Sprint Planning & Estimation

When treating systolic hypertension we do not know the optimum blood pressure which leads to the reduction of cardiovascular events and cardiovascular and total mortality. The results of the ACCORD study, when comparing intensive treatment of systolic blood pressure < 120 mm Hg and standard treatment < 140 mm Hg, did not lead to affecting the primary target for patients with diabetes mellitus. In the autumn last year the SPRINT study was presented and published, showing favourable impact on the

combined primary target, which involved myocardial infarction, other acute coronary syndromes, stroke, heart failure or death from cardiovascular causes during intensive treatment of systolic blood pressure, i.e. < 120 mm Hg, but on the other hand with a statistically significant incidence of secondary effects (hypotension, syncope, renal impairment or failure).Key words: target values - hypotension - cardiovascular events - systolic blood pressure.

6.2.Sprint Delivery Schedule



6.3.Reports from JIRA

Gadgets are added and arranged in a JIRA Dashboard. Being the first visible screen after entering JIRA, the Dashboard enjoys great visibility and has become the primary place in the system to view reports of JIRA data and connected systems. The Dashboard lends itself very well to reporting with its support of customized layout, multiple Dashboard pages and ability to change the look and behavior of each Gadget. Furthermore, Dashboard pages can be shared with a user, group or the entire organization. This makes Dashboards the perfect tool to create and share Report pages dedicated to specific projects and types of reporting.

Please see a list of currently pre-installed JIRA Gadgets below. There are also a large number of other Gadgets available that retrieve data from other Atlassian systems. Please see the big list of all Atlassian Gadgets for more information. Now, the JIRA Gadgets:

7.CODING & SOLUTIONING (Explain the features added in the project along with code)

7.1.Feature 1

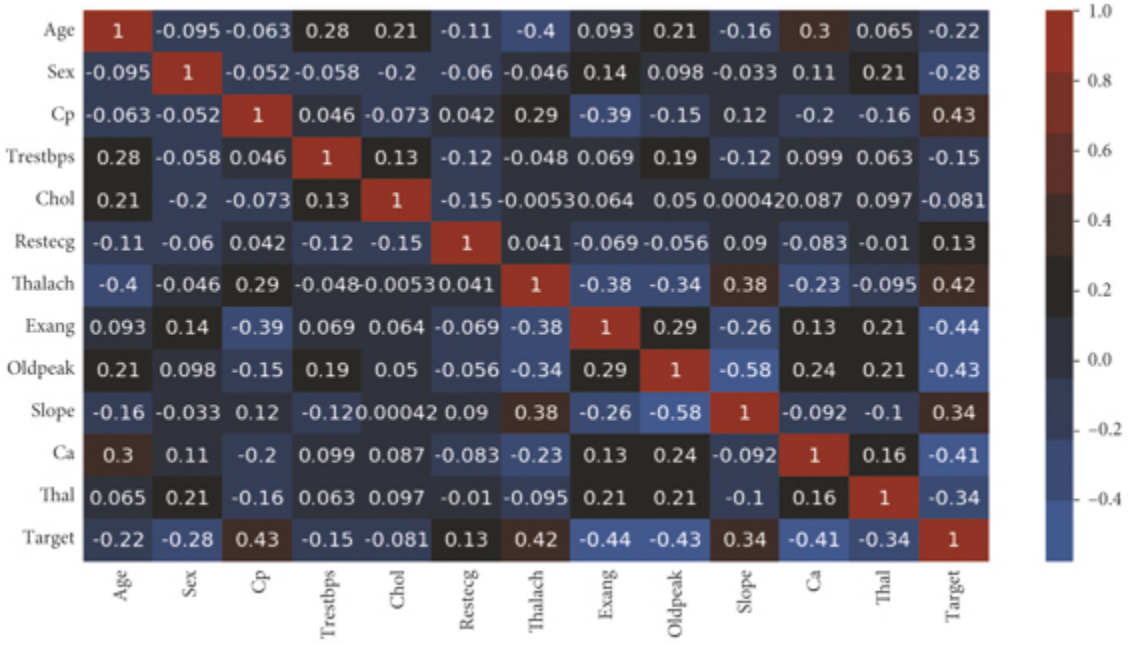
The health care industries collect huge amounts of data that contain some hidden

information, which is useful for making effective decisions. For providing appropriate results and making effective decisions on data, some advanced data mining techniques are used. In this study, an effective heart disease prediction system (EHDPS) is developed using neural network for predicting the risk level of heart disease. The system uses 15 medical parameters such as age, sex, blood pressure, cholesterol, and obesity for prediction. The EHDPS predicts the likelihood of patients getting heart disease. It enables significant knowledge, eg, relationships between medical factors related to heart disease and patterns, to be established. We have employed the multilayer perceptron neural network with backpropagation as the training algorithm. The obtained results have illustrated that the designed diagnostic system can effectively predict the risk level of heart diseases.

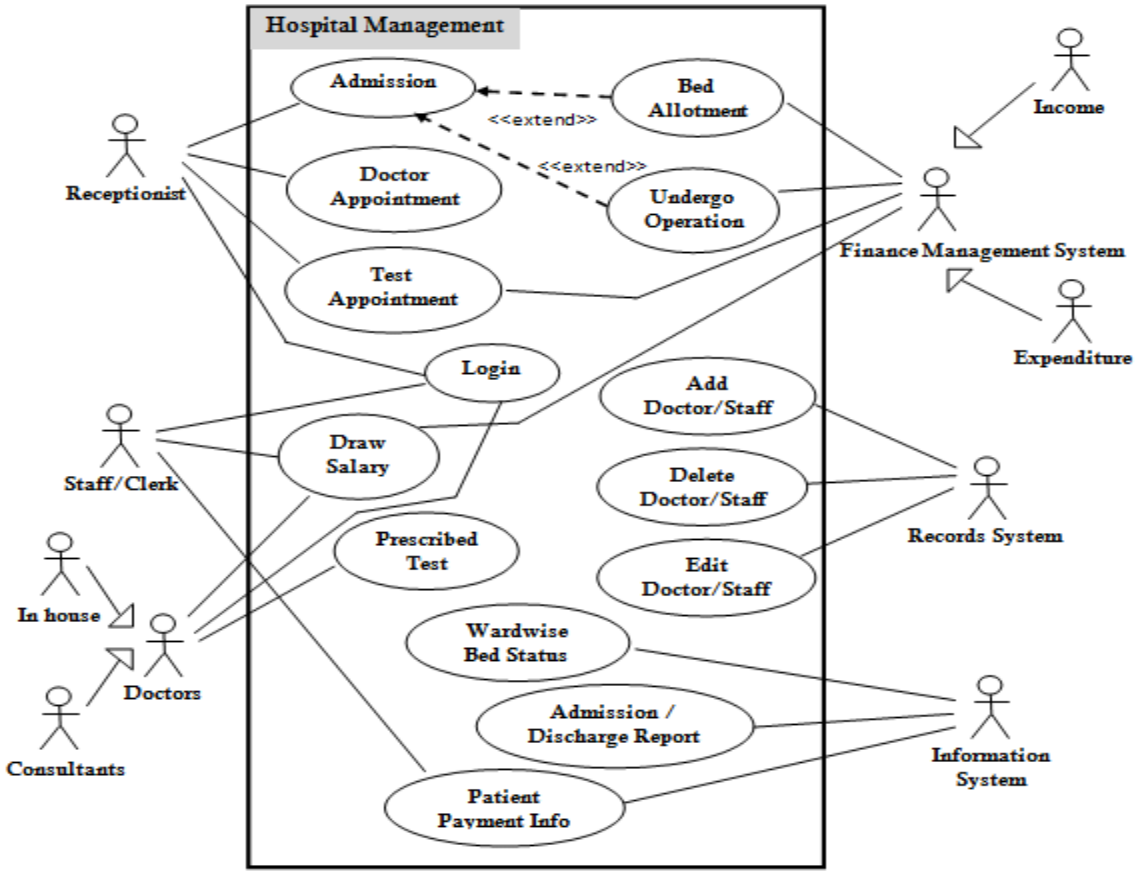
7.2.Feature 2

For selecting the features and only choosing the important feature, the Lasso algorithm is used which is a part of embedded methods while performing feature selection. It shows better predictive accuracy than filter methods. It renders good feature subsets for the used algorithm. And then for selecting the selected features, select from the model which is a part of feature selection in the scikit-learn library.

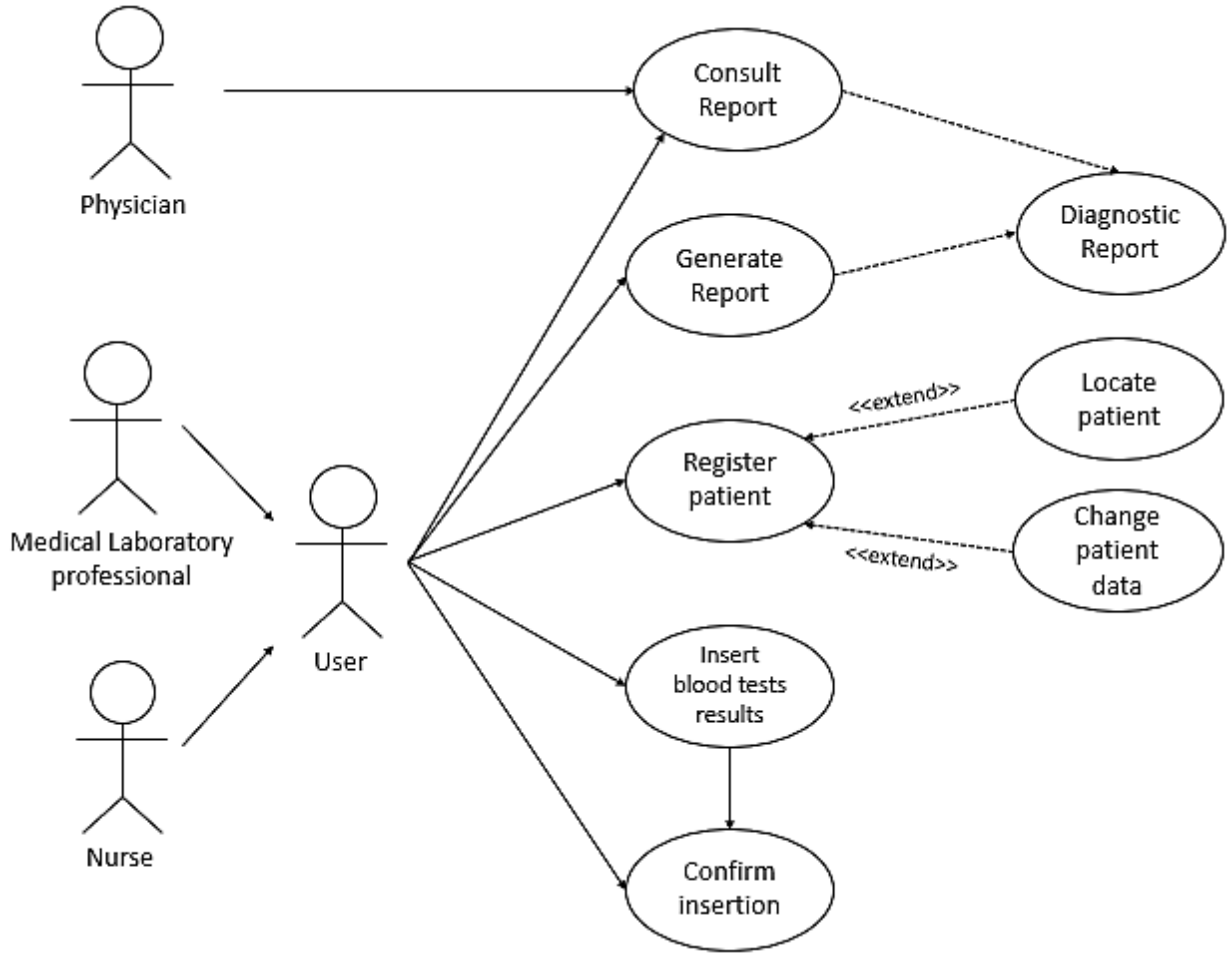
7.3.DatabaseSchema(ifApplicable)



8.TESTING
8.1.Test Cases



8.1.User Acceptance Testing



9.RESULTS

9.1.Performance Metrics

From these results we can see that although most of the researchers are using different algorithms such as SVC, Decision tree for the detection of patients diagnosed with Heart disease, KNN, Random Forest Classifier and Logistic regression yield a better result to out rule them [23]. The algorithms that we used are more accurate, saves a lot of money i.e. it is cost efficient and faster than the algorithms that the previous researchers used. Moreover, the maximum accuracy obtained by KNN and Logistic Regression are equal to 88.5% which is greater or almost equal to accuracies obtained from previous researches. So, we summarize Start Collect Heart Disease Dataset Extract Significant Variables Data Pre-processing Splitting Data Training Data Testing Data Training (KNN, Logistic Regression, Random Forest Classifier) Classifier Heart Disease Normal that our accuracy is improved due to the increased medical attributes that we used from the dataset we took. Our project also tells us that Logistic Regression and KNN outperforms Random Forest Classifier in the prediction of the patient diagnosed with a heart Disease. This proves that KNN and Logistic Regression are better in diagnosis of a heart disease. The following ‘figure 2’, ‘figure 3’, ‘figure 4’, ‘figure

5’ shows a plot of the number of patients that are been segregated and predicted by the classifier depending upon the age group, Resting Blood Pressure, Sex, Chest Pain.

10.ADVANTAGES & DISADVANTAGES

ADVANTAGES

- Effective in high dimensional spaces.
- Still effective in cases where the number of dimensions is greater than the number of samples.
- Uses a subset of training points in the decision function (called support vectors), so it is also memory efficient.
- Versatile: different kernel functions can be specified for the decision function. Common kernels are provided, but it is also possible to specify custom kernels.

DISADVANTAGES

If the number of features is much greater than the number of samples, avoid over-fitting in choosing Kernel functions and regularization term is crucial. SVMs do not directly provide probability estimates, these are calculated using an expensive five-fold cross-validation.

11.CONCLUSION

A cardiovascular disease detection model has been developed using three ML classification modelling techniques. This project predicts people with cardiovascular disease by extracting the patient medical history that leads to a fatal heart disease from a dataset that includes patients’ medical history such as chest pain, sugar level, blood pressure, etc. This Heart Disease detection system assists a patient based on his/her clinical information of them been diagnosed with a previous heart disease. The algorithms used in building the given model are Logistic regression, Random Forest Classifier and KNN [22]. The accuracy of our model is 87.5%. Use of more training data ensures the higher chances of the model to accurately predict whether the given person has a heart disease or not [9]. By using these, computer aided techniques we can predict the patient fast and better and the cost can be reduced very much. There are a number of medical databases that we can work on as these Machine learning techniques are better and they can predict better than a human being which helps the patient as well as the doctors. Therefore, in conclusion this project helps us predict the patients who are diagnosed with heart diseases by cleaning the dataset and applying logistic regression and KNN to get an accuracy of an average of 87.5% on our model which is better than the previous models having an accuracy of 85%. Also, it is concluded that accuracy of KNN is highest between the three algorithms that we have used i.e. 88.52%. ‘Figure 6’ shows 44% of people that are listed in the dataset are suffering from Heart Disease.

12.FUTURE SCOPE

Heart diseases are a major killer in India and throughout the world, application of promising technology like machine learning to the initial prediction of heart diseases will have a profound impact on society. The early prognosis of heart disease can aid in

making decisions on lifestyle changes in high-risk patients and in turn reduce the complications, which can be a great milestone in the field of medicine. The number of people facing heart diseases is on a raise each year. This prompts for its early diagnosis and treatment. The utilization of suitable technology support in this regard can prove to be highly beneficial to the medical fraternity and patients. In this paper, the seven different machine learning algorithms used to measure the performance are SVM, Decision Tree, Random Forest, Naïve Bayes, Logistic Regression, Adaptive Boosting, and Extreme Gradient Boosting applied on the dataset. The expected attributes leading to heart disease in patients are available in the dataset which contains 76 features and 14 important features that are useful to evaluate the system are selected among them. If all the features taken into the consideration then the efficiency of the system the author gets is less. To increase efficiency, attribute selection is done. In this n features have to be selected for evaluating the model which gives more accuracy. The correlation of some features in the dataset is almost equal and so they are removed. If all the attributes present in the dataset are taken into account then the efficiency decreases considerably. All the seven machine learning methods accuracies are compared based on which one prediction model is generated. Hence, the aim is to use various evaluation metrics like confusion matrix, accuracy, precision, recall, and f1-score which predicts the disease efficiently. Comparing all seven the extreme gradient boosting classifier gives the highest accuracy of 81%.

13.APPENDIX

HTML

- HTML stands for Hyper Text Markup Language
- HTML is the standard markup language for creating Web pages
- HTML describes the structure of a Web page
- HTML consists of a series of elements
- HTML elements tell the browser how to display the content
- HTML elements label pieces of content such as "this is a heading", "this is a paragraph", "this is a link", etc.

CSS

Cascading **S**tyle **S**heets, fondly referred to as **CSS**, is a simply designed language intended to simplify the process of making web pages presentable. CSS allows you to apply styles to web pages. More importantly, CSS enables you to do this independent of the HTML that makes up each web page. It describes how a webpage should look: it prescribes colors, fonts, spacing, and much more. In short, you can make your website look however you want. CSS lets developers and designers define how it behaves, including how elements are positioned in the browser.While html uses tags, css uses rulesets. CSS is easy to learn and understand, but it provides powerful control over the presentation of an HTML document.

JAVA SCRIPT

JavaScript is a lightweight, cross-platform, and interpreted compiled programming language which is also known as the scripting language for webpages. It is well-known for the development of web pages, many non-browser environments also use it. JavaScript can be used for **Client-side** developments as well as **Server-side** developments. Javascript is both imperative and declarative type of language. JavaScript contains a standard library of objects, like **Array**, **Date**, and **Math**, and a core set of language elements like **operators**, **control structures**, and **statements**.

Source Code

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

                <head>
                  <meta charset="utf-8">
                  <meta content="width=device-width, initial-scale=1.0" name="viewport">

                  <title>HEART_DISEASE_PREDICTION.html - Index</title>
                  <meta content="" name="description">
                  <meta content="" name="keywords">

                  <!-- Favicons -->
                  <link href="assets/img/favicon.png" rel="icon">
                  <link href="assets/img/apple-touch-icon.png" rel="apple-touch-icon">

                  <!-- Google Fonts -->
                  <link href="https://fonts.googleapis.com/css?family=Open+Sans:300,300i,400,400i,

                  <!-- Vendor CSS Files -->
                  <link href="assets/vendor/fontawesome-free/css/all.min.css" rel="stylesheet">
                  <link href="assets/vendor/animate.css/animate.min.css" rel="stylesheet">
                  <link href="assets/vendor/bootstrap/css/bootstrap.min.css" rel="stylesheet">
                  <link href="assets/vendor/bootstrap-icons/bootstrap-icons.css" rel="stylesheet">
                  <link href="assets/vendor/boxicons/css/boxicons.min.css" rel="stylesheet">
                  <link href="assets/vendor/glightbox/css/glightbox.min.css" rel="stylesheet">
                  <link href="assets/vendor/remixicon/remixicon.css" rel="stylesheet">
```

```
  <link href="assets/vendor/swiper/swiper-bundle.min.css" rel="stylesheet">

  <!-- Template Main CSS File -->
  <link href="assets/css/style.css" rel="stylesheet">

  <!-- =======================================================
  * Template Name: Medilab - v4.9.1
  * Template URL: https://bootstrapmade.com/medilab-free-medical-bootstrap-theme/
  * Author: BootstrapMade.com
  * License: https://bootstrapmade.com/license/
  ======================================================= -->
</head>

<body>

  <!-- ======= Top Bar ======= -->
  <div id="topbar" class="d-flex align-items-center fixed-top">
    <div class="container d-flex justify-content-between">
      <div class="contact-info d-flex align-items-center">
        <i class="bi bi-envelope"></i> <a href="mailto:contact@example.com">ghgh@g
        <i class="bi bi-phone"></i> +91 80565 76845
      </div>
      <div class="d-none d-lg-flex social-links align-items-center">
        <a href="#" class="twitter"><i class="bi bi-twitter"></i></a>
        <a href="#" class="facebook"><i class="bi bi-facebook"></i></a>
        <a href="#" class="instagram"><i class="bi bi-instagram"></i></a>
        <a href="#" class="linkedin"><i class="bi bi-linkedin"></i></i></a>
      </div>
    </div>
  </div>

  <!-- ======= Header ======= -->
  <header id="header" class="fixed-top">
    <div class="container d-flex align-items-center">

      <h1 class="logo me-auto"><a href="index.html">Heart disease prediction</a></
      <!-- Uncomment below if you prefer to use an image logo -->
      <!-- <a href="index.html" class="logo me-auto"><img src="assets/img/logo.png

      <nav id="navbar" class="navbar order-last order-lg-0">
        <ul>
          <li><a class="nav-link scrollto active" href="#hero">Home</a></li>
          <li><a class="nav-link scrollto" href="#about">About</a></li>
```

```
        <li><a class="nav-link scrollto" href="#services">Project</a></li>
        <li><a class="nav-link scrollto" href="#team">Team</a></li>

      </ul>
      <i class="bi bi-list mobile-nav-toggle"></i>
    </nav><!-- .navbar -->



  </div>
</header><!-- End Header -->

<!-- ======= Hero Section ======= -->
<section id="hero" class="d-flex align-items-center">
  <div class="container">
    <h1>Prediction of heart disease</h1>
    <h2>The leading cause of death in the developed world is heart disease. Ther
    <a href="#about" class="btn-get-started scrollto">Get Started</a>
  </div>
</section><!-- End Hero -->

<main id="main">

  <!-- ======= Why Us Section ======= -->
  <section id="why-us" class="why-us">
    <div class="container">

      <div class="row">
        <div class="col-lg-4 d-flex align-items-stretch">
          <div class="content">
            <h3>Heart disease prediction system</h3>
            <p>
              The Heart Disease Prediction application is an end user support an
              Here,we propose a web application that allows users to get instant
            </p>
            <div class="text-center">
              <a href="#" class="more-btn">Learn More <i class="bx bx-chevron-ri
            </div>
          </div>
        </div>
        <div class="col-lg-8 d-flex align-items-stretch">
          <div class="icon-boxes d-flex flex-column justify-content-center">
            <div class="row">
```

```
              <div class="col-xl-4 d-flex align-items-stretch">
                <div class="icon-box mt-4 mt-xl-0">
                  <i class="bx bx-receipt"></i>
                  <h4>heart disease dashboard</h4>
                  <p>The dashboard presents data via a clear mechanistic interfa
                </div>
              </div>
              <div class="col-xl-4 d-flex align-items-stretch">
                <div class="icon-box mt-4 mt-xl-0">
                  <i class="bx bx-cube-alt"></i>
                  <h4>heart disease report</h4>
                  <p>An effective report for heart disease prediction system is
                </div>
              </div>
              <div class="col-xl-4 d-flex align-items-stretch">
                <div class="icon-box mt-4 mt-xl-0">
                  <i class="bx bx-images"></i>
                  <h4>heart disease story</h4>
                  <p>You may experience various types of emotional distress or b
                </div>
              </div>
            </div>
          </div><!-- End .content-->
        </div>
      </div>

    </div>
  </section><!-- End Why Us Section -->

  <!-- ======= About Section ======= -->
  <section id="about" class="about">
    <div class="container-fluid">

      <div class="row">
        <div class="col-xl-5 col-lg-6 video-box d-flex justify-content-center al
          <a href="https://image.shutterstock.com/image-illustration/human-heart
          <a href="blob:https://web.whatsapp.com/1f53d460-86ba-485a-8e0f-2f6044a
        </div>

        <div class="col-xl-7 col-lg-6 icon-boxes d-flex flex-column align-items-
          <h3>Project Description</h3>
          <p>Day by day the cases of heart diseases are increasing at a rapid ra
            and concerning to predict any such diseases beforehand. This diagnos
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            be performed precisely and efficiently. The research paper mainly fo
            likely to have a heart disease based on various medical attributes.
            prediction system to predict whether the patient is likely to be dia
            using the medical history of the patient.</p>

          <div class="icon-box">
            <div class="icon"><i class="bx bx-fingerprint"></i></div>
            <h4 class="title"><a href="">Dashboard</a></h4>
            <p class="description">The dashboard presents data via a clear mecha
          </div>

          <div class="icon-box">
            <div class="icon"><i class="bx bx-gift"></i></div>
            <h4 class="title"><a href="">Report</a></h4>
            <p class="description">An effective report for heart disease predict
          </div>

          <div class="icon-box">
            <div class="icon"><i class="bx bx-atom"></i></div>
            <h4 class="title"><a href="">Story</a></h4>
            <p class="description">You may experience various types of emotional
          </div>

        </div>
      </div>

    </div>
  </section><!-- End About Section -->


  <!-- ======= Services Section ======= -->
  <section id="Services" class="Services">
    <div class="container">



      <div class="section-title">
        <h2>Project</h2>
        <p>Here we have shown our project dashboard,report,story</p>
      </div>
```
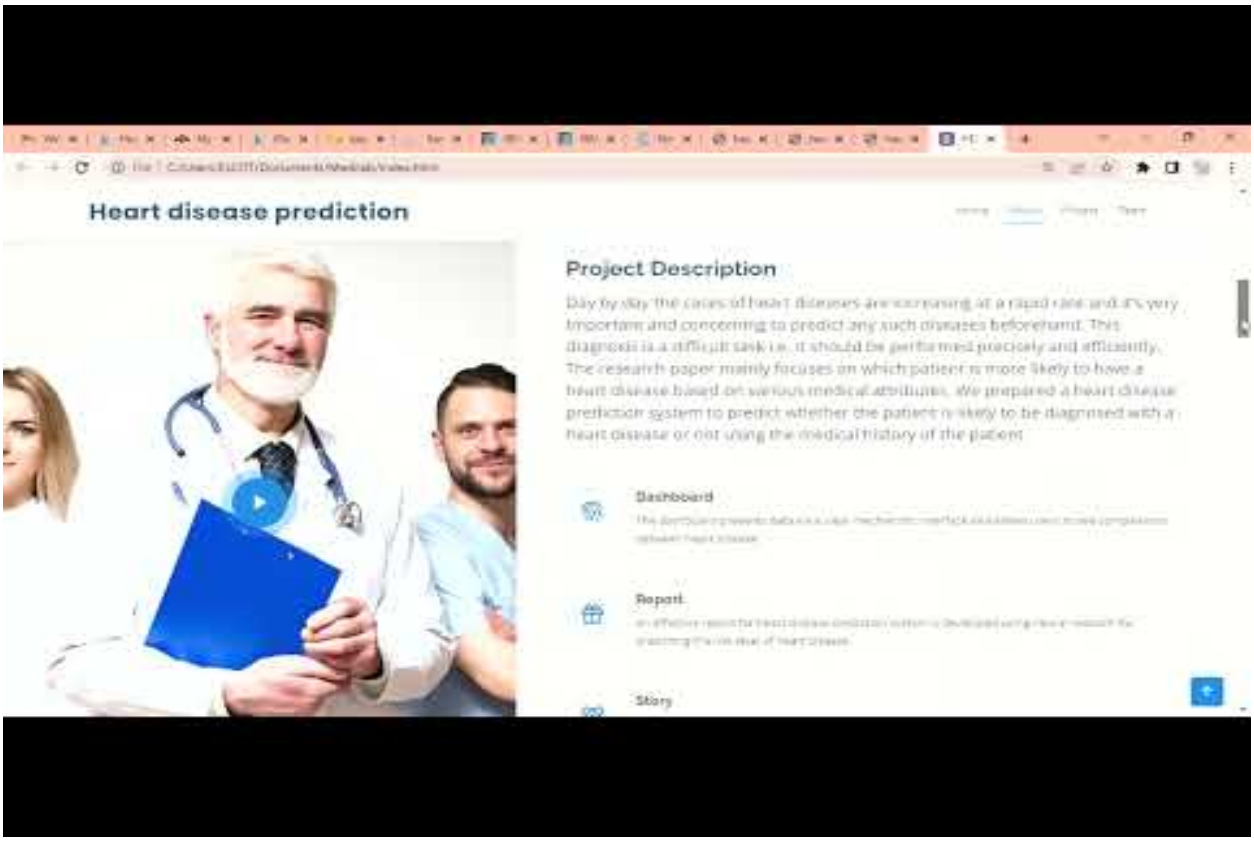

```
      </div>
      <h1>Heart Disease Dashboard</h1>

      <iframe src="https://us3.ca.analytics.ibm.com/bi/?perspective=dashboard&amp;
media" allowfullscreen=""></iframe>
      <h1>Heart Disease Report</h1>

      <iframe src="https://us3.ca.analytics.ibm.com/bi/?pathRef=.my_folders%2FNew%

      <h1>Heart Diesese Story</h1>

      <iframe src="https://us3.ca.analytics.ibm.com/bi/?perspective=story&amp;path
allowfullscreen=""></iframe>


    </section><!-- End Services Section -->




    <!-- ======= Doctors Section ======= -->
    <section id="doctors" class="doctors">
      <div class="container">

        <div class="section-title">
          <h2>Team</h2>

        </div>

        <div class="row">

          <div class="col-lg-6">
            <div class="member d-flex align-items-start">
              <div class="pic"><img src="https://w7.pngwing.com/pngs/527/663/png-t
              <div class="member-info">
                <h4>R.Gladys Persy</h4>
                <span>Team leader</span>


              </div>
            </div>
          </div>
```

```
          <div class="col-lg-6 mt-4 mt-lg-0">
            <div class="member d-flex align-items-start">
              <div class="pic"><img src="https://w7.pngwing.com/pngs/527/663/png-t
              <div class="member-info">
                <h4>K.Jeya harini</h4>
                <span>Team member 1</span>


              </div>
            </div>
          </div>

          <div class="col-lg-6 mt-4">
            <div class="member d-flex align-items-start">
              <div class="pic"><img src="https://w7.pngwing.com/pngs/527/663/png-t
              <div class="member-info">
                <h4>V.Hema priya</h4>
                <span>Team member 2</span>

              </div>
            </div>
          </div>

          <div class="col-lg-6 mt-4">
            <div class="member d-flex align-items-start">
              <div class="pic"><img src="https://w7.pngwing.com/pngs/527/663/png-t
              <div class="member-info">
                <h4>J.Gomathy</h4>
                <span>Team member 3</span>


              </div>
            </div>
          </div>

        </div>

      </div>
    </section><!-- End Doctors Section -->
    <!-- ======= Footer ======= -->
    <footer id="footer">

      <div class="footer-top">
```

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


  <div class="container d-md-flex py-4">

    <div class="me-md-auto text-center text-md-start">
      <div class="copyright">
        &copy; Copyright <strong><span>Heartdisease</span></strong>. All Right
      </div>
      <div class="credits">
        <!-- All the links in the footer should remain intact. -->
        <!-- You can delete the links only if you purchased the pro version. -
        <!-- Licensing information: https://bootstrapmade.com/license/ -->
        <!-- Purchase the pro version with working PHP/AJAX contact form: http
        Designed by <a href="https://bootstrapmade.com/">BootstrapMade</a>
      </div>
    </div>
    <div class="social-links text-center text-md-right pt-3 pt-md-0">
      <a href="#" class="twitter"><i class="bx bxl-twitter"></i></a>
      <a href="#" class="facebook"><i class="bx bxl-facebook"></i></a>
      <a href="#" class="instagram"><i class="bx bxl-instagram"></i></a>
      <a href="#" class="google-plus"><i class="bx bxl-skype"></i></a>
      <a href="#" class="linkedin"><i class="bx bxl-linkedin"></i></a>
    </div>
  </div>
</footer><!-- End Footer -->

<div id="preloader"></div>
<a href="#" class="back-to-top d-flex align-items-center justify-content-cente

<!-- Vendor JS Files -->
<script src="assets/vendor/purecounter/purecounter_vanilla.js"></script>
<script src="assets/vendor/bootstrap/js/bootstrap.bundle.min.js"></script>
<script src="assets/vendor/glightbox/js/glightbox.min.js"></script>
<script src="assets/vendor/swiper/swiper-bundle.min.js"></script>
<script src="assets/vendor/php-email-form/validate.js"></script>

<!-- Template Main JS File -->
<script src="assets/js/main.js"></script>
```

```
</body>

</html>
```

GitHub & Project Demo Link



http://youtu.be/WZYvEubJJKK