Pre-Development Phase
Ideation Phase - Literature Survey

Date	30 October 2022
Team ID	PNT2022TMID49652
Project Name	Early Detection of Chronic Kidney Disease using Machine Learning
Maximum Marks	4 Marks

```html
<html lang="en">
  <head>
    <meta charset="utf-8">
    <meta name="viewport" content="width=device-width, initial-scale=1, shrink-to-fit=no">
    <meta name="description" content="">
    <meta name="author" content="">
<title>Kidney Disease Detection</title>
<link rel="canonical" href="https://getbootstrap.com/docs/4.0/examples/carousel/">


    <link href="../../dist/css/bootstrap.min.css" rel="stylesheet">
</head>
  <body>
<main role="main">
 <section class="jumbotron p-3 p-md-5 text-white rounded bg-dark text-center">
      <div class="container">
        <h1 class="jumbotron-heading">Chronic Kidney Disease Detection</h1>
        <p class="lead">Chronic kidney disease (CKD) is one of the most
critical health problems due to its increasing prevalence. In this
paper, we aim to test the ability of machine learning algorithms
for the prediction of chronic kidney disease using the smallest
subset of features</p>
        <p>
          <a href="https://www.mayoclinic.org/diseases-conditions/chronic-kidney-disease/symptoms-causes/syc-20354521" class="btn btn-primary my-2">Read More about the Disease</a>
        </p>
      </div>
    </section>
```

```html
<div class="row mb-2">

    <div class="col-md-6">

        <div class="card flex-md-row mb-4 box-shadow h-md-250">

            <div class="card-body d-flex flex-column align-items-start">

                <strong class="d-inline-block mb-2 text-primary">Machine Learning</strong>

                <h3 class="mb-0">

                    <a class="text-dark" href="#">Random Forest</a>

                </h3>

                <div class="mb-1 text-muted">For Regression & Classification</div>

                <p class="card-text mb-auto">Random forest is a supervised learning algorithm. ... The general idea of the bagging method is that a combination of learning models increases the overall result. Put simply: random forest builds multiple decision trees and merges them together to get a more accurate and stable prediction.</p>

                <a href="#">Continue reading</a>

            </div>

        </div>

    </div>

    <div class="col-md-6">

        <div class="card flex-md-row mb-4 box-shadow h-md-250">

            <div class="card-body d-flex flex-column align-items-start">

                <strong class="d-inline-block mb-2 text-success">Model & Algorithm</strong>

                <h3 class="mb-0">

                    <a class="text-dark" href="#">XGBoost</a>

                </h3>

                <div class="mb-1 text-muted">Gradient Boosting Machine</div>

                <p class="card-text mb-auto">XGBoost is an algorithm that has recently been dominating applied machine learning and Kaggle competitions for structured or tabular data. XGBoost is an implementation of gradient boosted decision trees designed for speed and performance.</p>

                <a href="#">Continue reading</a>

            </div>

        </div>

    </div>

</div>
```

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

<div class="row">

    <div class="col-lg-4">

     <img class="rounded-circle" src="https://cdn.icon-icons.com/icons2/2593/PNG/512/data_icon_154512.png" alt="Generic placeholder image" width="140" height="140">

     <h2>Data-Set</h2>

     <p>We have used the data set available in Kaggle - Chronic-Kidney Disease Detection. After Classifying the data, Preprocessing performed the Exploratory Data Analysis. This data set contains about 1338 records of data in various categories.</p>

     <p><a class="btn btn-secondary" href="#" role="button">View details &raquo;</a></p>

    </div>

    <div class="col-lg-4">

     <img class="rounded-circle" src="https://www.edureka.co/blog/wp-content/uploads/2019/01/Classification-Random-Forest-Random-Forest-In-R-Edureka-2-381x300.png" alt="Generic placeholder image" width="140" height="140">

     <h2>Algorithm</h2>

     <p>Random Forest is a popular machine learning algorithm that belongs to the supervised learning technique. It can be used for both Classification and Regression problems in ML. It is based on the concept of ensemble learning to improve the performance of the model.</p>

     <p><a class="btn btn-secondary" href="#" role="button">View details &raquo;</a></p>

    </div>

    <div class="col-lg-4">

     <img class="rounded-circle" src="https://cdn.pixabay.com/photo/2016/05/25/13/18/target-1414775_960_720.png" alt="Generic placeholder image" width="140" height="140">

     <h2>Accuracy</h2>

     <p>XGBoost is a decision-tree-based ensemble Machine Learning algorithm that uses a gradient boosting framework. In prediction problems involving unstructured data. After modelling our data, the Accuracy is <b>98%.</b> So far we have achieved good accuracy. </p>

     <p><a class="btn btn-secondary" href="#" role="button">View details &raquo;</a></p>

    </div>

   </div>


    <hr class="featurette-divider">
```

```html
<div class="row featurette">

        <div class="col-md-12">

          <h2 class="featurette-heading">How it will works</h2>

          <p class="lead">This prediction will be used in healthcare Applications. As it was
very important to predict weather the patient was having any chances of getting this Kidney
Disease. This project comprises with the deployement too. we can deploy this project y
means of Python web servers available in the market.</p>

        </div>

      </div>


        <hr class="featurette-divider">

<div class="row featurette">

        <div class="col-md-12">

          <h2 class="featurette-heading">Conflicts & Modifications</h2>

          <p class="lead">Since, we deployed our model in Flask - Framework. As, this was a
simple classification and regression analysis. There might be some problems arises during
the installationof Tensorflow & Python Versions. we must make sure of Installing the same
versions. In order to avoid this, We must ensure to install the correct dependencies - before
running this project.</p>

        </div>

      </div>

<hr class="featurette-divider">


    <section class="jumbotron p-3 p-md-5 text-white rounded bg-dark text-center">

      <div class="container">

        <h1 class="jumbotron-heading">Chronic Kidney Disease Detection</h1>

        <p class="lead">Chronic kidney disease (CKD) is one of the most

critical health problems due to its increasing prevalence. In this

paper, we aim to test the ability of machine learning algorithms

for the prediction of chronic kidney disease using the smallest

subset of features</p>

        <p>

          <a href="{{ url_for('kidneyPage') }}" class="btn btn-primary my-2">Check out the
Project</a>

        </p>

      </div>
```

```html
      </section>

  </main>


    <script src="https://code.jquery.com/jquery-3.2.1.slim.min.js" integrity="sha384-KJ3o2DKtIkvYIK3UENzmM7KCkRr/rE9/Qpg6aAZGJwFDMVNA/GpGFF93hXpG5KkN" crossorigin="anonymous"></script>

    <script>window.jQuery || document.write('<script src="../../assets/js/vendor/jquery-slim.min.js"><\/script>')</script>

    <script src="../../assets/js/vendor/popper.min.js"></script>

    <script src="../../dist/js/bootstrap.min.js"></script>


    <script src="../../assets/js/vendor/holder.min.js"></script>

    <form action="{{ url_for('register') }}" method="post">

  </form>

 </body>

</html>
```