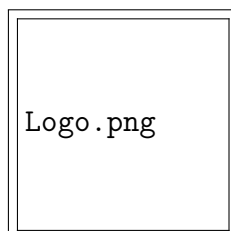**A PROJECT REPORT ON**

Project Title

SUBMITTED TO THE SAVITRIBAI PHULE PUNE UNIVERSITY, PUNE

IN THE PARTIAL FULFILLMENT FOR THE AWARD OF THE DEGREE

OF

BACHELOR OF ENGINEERING

IN

INFORMATION TECHNOLOGY

SUBMITTED BY,

1. **Student Name**   **Exam No:**

2. **Student Name**   **Exam No:**

3. **Student Name**   **Exam No:**

4. **Student Name**   **Exam No:**

UNDER THE GUIDANCE OF

Prof.——————-

SINHGAD TECHNICAL EDUCATION SOCIETY

SKN SINHGAD INSTITUTE OF TECHNOLOGY & SCIENCE, LONAVALA

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GAT NO. 309, KUSGAON (BK.) OFF MUMBAI-PUNE EXPRESSWAY,

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ACADEMIC YEAR: 2020-2021

DEPARTMENT OF INFORMATION TECHNOLOGY

College Name

Academic Year 2020-21

<div style="border:1px solid">CERTIFICATE</div>

This is to certify that the project report entitled

Project Title

SUBMITTED BY,

1. **Student Name**   **Exam No:**

2. **Student Name**   **Exam No:**

3. **Student Name**   **Exam No:**

4. **Student Name**   **Exam No:**

Is a bonafide work carried out by them under the supervision of Prof.————— and it is approved for the partial fulfillment of the requirement of Savitribai Phule Pune University, for the award of the Degree of Bachelor of Engineering (Information Technology).

The project work has not been earlier submitted to any other institute or university for the award of degree or diploma.

Prof.———   **Prof.———**

Internal Guide   **Head of Department (I.T.)**

Prof...........................   **Principal**

External Examiner

Acknowledgement

We express our sense of gratitude towards our project guide Prof.——— for his/her valuable guidance at every step of study of this project, also his/her contribution for the solution of every problem at each stage.

We are thankful to Prof.——— Head,Department of Information Technology, all the staff members and project Coordinator Prof.——— who extended the preparatory steps of this project. We are very much thankful to respected Principal Dr.——— for his support and providing all facilities for project.

Finally we want to thank to all our friends for their support & suggestions. Last but not the least we want to express thanks to our family for giving us support and confidence at each and every stage of this project.

Student Name
Student Name
Student Name
Student Name

Abstract

The healthcare domain is one of the prominent research fields in the current scenario with the rapid improvement of technology and data. It is difficult to handle the huge amount of data of the patients. It is easier to handle this data through Big Data Analytics. There are a lot of procedures for the treatment of multiple diseases across the world. Machine Learning is an emerging approach that helps in prediction, diagnosis of a disease. This paper depicts the prediction of disease based on symptoms using machine learning. Machine Learning algorithms such as Naive Bayes, Decision Tree and Random Forest are employed on the provided dataset and predict the disease. Its implementation is done through the python programming language. The research demonstrates the best algorithm based on their accuracy. The accuracy of an algorithm is determined by the performance on the given dataset.

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CHAPTER 1

INTRODUCTION

1.1 OVERVIEW

At present, when one suffers from particular disease, then the person has to visit to doctor which is time consuming and costly too. Also if the user is out of reach of doctor and hospitals it may be difficult for the user as the disease can not be identified. So, if the above process can be completed using a automated program which can save time as well as money, it could be easier to the patient which can make the process easier. There are other Heart related Disease Prediction System using data mining techniques that analyzes the risk level of the patient. heart Disease Predictor is a web based application that predicts the heart disease of the user with respect to the symptoms given by the user. heart Disease Prediction system has data sets collected from different health related sites. With the help of heart Disease Predictor the user will be able to know the probability of the disease with the given symptoms. As the use of internet is growing every day, people are always curious to know different new things. People always try to refer to the internet if any problem arises. People have access to internet than hospitals and doctors. People do not have immediate option when they suffer with particular disease. So, this system can be helpful to the people as they have access to internet 24 hours.

1.1.1 Motivation

The current systems working on heart disease prediction works on a small dataset. The aim of our system is to work on a larger dataset to increase the efficiency of the overall system.our system is easy to heart predict disease give output quickly the heart Diesase prediction functioning depends on Natural language processing that helps users to submit their problem about the health.

1.1.2 Objective

- **To implement Naïve Bayes Classifier that classifies the disease as per the input of the user.**

- **To develop web interface platform for the heart prediction of the disease.**

- **to give immediaitily Output to user(heart predict the disease Quickly)**

CHAPTER 2

LITERATURE SURVEY

2.1 STUDY OF RESEARCH PAPER

1.Paper Name: Design And Implementing Heart Disease Prediction Using Naives Bayesian

Author:Anjan Nikhil Repaka,Sai Deepak Ravikanti.

Abstract :—Data mining, a great developing technique that revolves around exploring and digging out significant information from massive collection of data which can be further beneficial in examining and drawing out patterns for making business related decisions. Talking about the Medical domain, implementation of data mining in this field can yield in discovering and withdrawing valuable patterns and information which can prove beneficial in performing clinical diagnosis. The research focuses on heart disease diagnosis by considering previous data and information. To achieve this SHDP (Smart Heart Disease Prediction) is built via Navies Bayesian in order to predict risk factors concerning heart disease. The speedy advancement of technology has led to remarkable rise in mobile health technology that being one of the web application. The required data is assembled in a standardized form. For predicting the chances of heart disease in a patient, the following attributes are being fetched from the medical profiles, these include: age, BP, cholesterol, sex, blood sugar etc... The collected attributes acts as input for the Navies Bayesian classification for predicting heart disease. The dataset utilized is split into two sections, 80% dataset is utilized for training and rest 20% is utilized for testing. The proposed approach includes following stages: dataset collection, user registration and login (Application based), classification via Navies Bayesian, prediction and secure data transfer by employing AES (Advanced Encryption Standard). Thereafter result is produced. The research elaborates and presents multiple knowledge abstraction techniques by making use of data mining methods which are adopted for heart disease prediction. The output reveals that the established diagnostic system effectively assists in predicting risk factors concerning heart diseases.

2.Paper Name:Application of Machine Learning in Disease Prediction

Author: Pahulpreet Singh Kohli,Shriya Arora

Abstract :The application of machine learning in the field of medical diagnosis is increasing gradually. This can be contributed primarily to the improvement in the classification and recognition systems used in disease diagnosis which is able to provide data that aids medical experts in early detection of fatal diseases and therefore, increase the survival rate of patients significantly. In this paper, we apply different classification algorithms, each with its own advantage on three separate databases of disease (Heart, Breast cancer, Diabetes) available in UCI repository for disease prediction. The feature selection for each dataset was accomplished by backward modeling using the p-value test. The results of the study strengthen the idea of the application of machine learning in early detection of diseases.

3.Paper Name:Disease phenotype similarity improves the prediction of novel disease-associated microRNAs

Author:Duc-Hau Le

Description : —Many studies have shown roles of miRNAs (microRNAs) on human disease and a number of computational methods have been proposed to predict such associations by ranking candidate microRNAs according to their relevance to a disease. Among them, network-based methods are becoming dominant since they well exploit the "disease module" principle in miRNA functional similarity networks. Of which, Random Walk with Restart (RWR) algorithm-based method on a miRNA functional similarity network, namely RWRMDA, is state-of-theart one. The use of this algorithm was inspired from its success in predicting disease gene because "disease module" principle also exists in protein interaction networks. Besides, many other algorithms were also designed for prediction of disease genes. However, they have not yet been utilized for disease microRNA prediction. In this study, we proposed a method, namely RWRHMDA, for prediction of disease-associated miRNAs. This method was based on RWRH algorithm, which was successfully proposed for disease gene prediction on a heterogeneous network of genes and disease phenotypes. In particular, we used this algorithm to rank disease candidate miRNAs on a heterogeneous network of phenotypes and miRNAs, which was constructed by integrating a shared target gene-based microRNA functional similarity network and a disease phenotype similarity network. Comparing the prediction performance of RWRHMDA with that of RWRMDA on a set of 35 disease phenotypes, we found that RWRHMDA significantly outperformed RWRMDA irrespective of parameter settings since it better exploited "disease module" principle. In addition, using RWRHMDA method, we identified eight novel Alzheimer's disease-associated miRNAs.

4.Paper Name:Efficient Heart Disease Prediction System using Decision Tree

Author: Purushottam,Prof. (Dr.) Kanak Saxena,Richa Sharma

Description :—Cardiovascular disease (CVD) is a big reason of morbidity and mortality in the current living style. Identification of Cardiovascular disease is an important but a complex task that needs to be performed very minutely, efficiently and the correct automation would be very desirable. Every human being can not be equally skillful and so as doctors. All doctors cannot be equally skilled in every sub specialty and at many places we don't have skilled and specialist doctors available easily. An automated system in medical diagnosis would enhance medical care and it can also reduce costs. In this study, we have designed a system that can efficiently discover the rules to predict the risk level of patients based on the given parameter about their health. The rules can be prioritized based on the user's requirement. The performance of the system is evaluated in terms of classification accuracy and the results shows that the system has great potential in predicting the heart disease risk level more accurately

5.Paper Name:Diabetes Disease Prediction Using Data Mining

Author:Deeraj Shetty,Kishor Rit,Sohail Shaikh.

Abstract:Data mining is a subfield in the subject of software engineering. It is the methodical procedure of finding examples in huge data sets including techniques at the crossing point of manufactured intelligence, machine learning, insights, and database systems. The goal of the data mining methodology is to think data from a data set and change it into a reasonable structure for further use. Our examination concentrates on this part of Medical conclusion learning design through the gathered data of diabetes and to create smart therapeutic choice emotionally supportive network to help the physicians. The primary target of this examination is to assemble Intelligent Diabetes Disease Prediction System that gives analysis of diabetes malady utilizing diabetes patient's database. In this system, we propose the use of algorithms like Bayesian and KNN (K-Nearest Neighbor) to apply on diabetes patient's database and analyze them by taking various attributes of diabetes for prediction of diabetes disease.

6.paper Name:Defining Disease Phenotypes in Primary Care Electronic Health Records by a Machine Learning Approach: A Case Study in Identifying Rheumatoid Arthritis

Author:Shang-Ming Zhou1 *, Fabiola Fernandez-Gutierrez1 , Jonathan Kennedy1 , Roxanne Cooksey1 , Mark Atkinson1 , Spiros Denaxas2 , Stefan Siebert3 , William G. Dixon4 , Terence W. O'Neill4 , Ernest Choy5 , Cathie Sudlow6 , UK Biobank Follow-up and Outcomes Group7¶, Sinead Brophy.

Abstract:1) To use data-driven method to examine clinical codes (risk factors) of a medical condition in primary care electronic health records (EHRs) that can accurately predict a diagnosis of the condition in secondary care EHRs. 2) To develop and validate a disease phenotyping algorithm for rheumatoid arthritis using primary care EHRs.This study linked routine primary and secondary care EHRs in Wales, UK. A machine learning based scheme was used to identify patients with rheumatoid arthritis from primary care EHRs via the following steps: i) selection of variables by comparing relative frequencies of Read codes in the primary care dataset associated with disease case compared to non-disease control (disease/non-disease based on the secondary care diagnosis); ii) reduction of predictors/associated variables using a Random Forest method, iii) induction of decision rules from decision tree model. The proposed method was then extensively validated on an independent dataset, and compared for performance with two existing deterministic algorithms for RA which had been developed using expert clinical knowledge.

7. Paper Name:Prediction of Disease Infection of Welsh Onions by Rust Fungus Based on Temperature and Wetness Duration

Author:Hiroyuki Takanashi, Hiromitsu Furuya and Seiji Chonan

Abstract:The style of agriculture practiced in Japan and other countries in Asia is small scale compared to that in North America. While systematic production and management systems have been maintained in Europe and America, Japanese agricultural style tends to depend on past experiences, and application of agricultural chemicals is guided by the calendar and past experiences. Japan is also advanced in the field of plant disease prediction. This paper focuses on a prediction model of disease infection for a foliar parasite on Welsh onions. Rust fungus disease is the most typical disease on Welsh onions, and the Weibull probability density function is appropriate for approximating the infection rate of the disease. The model utilizes temperature and wetness duration to predict the infection of Welsh onions by rust fungus. Producers, then, can use the model to determine the day on which the infection rate will rapidly increase, then carry out appropriate countermeasures to the disease. The proposed prediction method is applicable to several infections found throughout Asia.

8.Paper Name:Neurodegenerative disease prediction based on gait analysis signals acquired with force-sensitive

Author:ger Selzler 1 , James R. Green 1 , Rafik Goubran.

Abstract:Neurodegenerative diseases such as Parkinson's Disease (PD), Huntington Disease (HD), and Amyotrophic Lateral Sclerosis (ALS) affect the lives of thousands of people around the world. One of the consequences of such diseases occurs in the motor neurons of the patients, resulting in problems in movement, causing a change in gait pattern. Force sensitive resistors can be used to measure the force/pressure between the shoe and the patient's foot, providing information about the gait dynamics when the patient walks. This project uses signals from the Gait Dynamics in Neuro-Degenerative Disease database to extract features for classification of neurodegenerative diseases (NDD). Manually labelled features from the database are used for comparison with previous studies. Time series signals is also used, where algorithms for signal reliability, feature extraction and feature selection are implemented, allowing real-time signal processing and classification. Multiple feature sets are used for classification with algorithms such as K-nearest neighbor, Support Vector Machines, and Decision Trees, and the performance of these algorithms are then reported. This study presents a realtime system with accuracy exceeding 82% for the aforementioned diseases. Finally, a discussion about possible improvements for future studies are presented.

9.Paper name:Chatbot for Disease Prediction and Treatment Recommendation using Machine Learning

Author:Rohit Binu Mathew, Sandra Varghese, Sera Elsa Joy, Swanthana Susan Alex

Abstract:Hospitals are the most widely used means by which a sick person gets medical check-ups, disease diagnosis and treatment recommendation. This has been a practice by almost all the people over the world. People consider it as the most reliable means to check their health status. The proposed system is to create an alternative to this conventional method of visiting a hospital and making an appointment with a doctor to get diagnosis. This research intends to apply the concepts of natural language processing and machine learning to create a chatbot application. People can interact with the chatbot just like they do with another human and through a series of queries, chatbot will identify the symptoms of the user and thereby, predicts the disease and recommends treatment. This system can be of great use to people in conducting daily check-ups, makes people aware of their health status and encourages people to make proper measures to remain healthy. According to this research, such a system is not widely used and people are less aware of it. Executing this proposed framework can help people avoid the time-consuming method of visiting hospitals by using this free of cost application, wherever they are.

10. Paper Name:Chatbot for Disease Prediction and Treatment Recommendation using Machine Learning

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CHAPTER 3

PROBLEM STATEMENT

There are many tools related to disease prediction. But particularly heart related diseases have been analyzed and risk level is generated. But generally there are no such tools that are used for prediction of general diseases. So Disease Predictor helps for the prediction of the general diseases.

CHAPTER 4

PROJECT REQUIREMENT

4.1 EXTERNAL INTERFACE REQUIREMENT

4.1.1 User Interface

Application Based Heart Disease Predication.

4.1.2 Hardware Interfaces:

RAM : 8 GB

As we are using Machine Learning Algorithm and Various High Level Libraries

Laptop

RAM minimum required is 8 GB.

Hard Disk : 40 GB

Data Set of CT Scan images is to be used hence minimum 40 GB Hard Disk memory is required.

Processor : Intel i5 Processor

Pycharm IDE that Integrated Development Environment is to be used and data loading should be fast hence Fast Processor is required

IDE : Pycharm

Best Integrated Development Environment as it gives possible suggestions at the time of typing code snippets that makes typing feasible and fast.

Coding Language : Python Version 3.5

Highly specified Programming Language for Machine Learning because of availability of High Performance Libraries.

Operating System : Windows 10

Latest Operating System that supports all type of installation and development Environment

4.1.3 Software Interfaces

Operating System: Windows 10

IDE:Spyder

Programming Language : Python

4.2   NON FUNCTIONAL REQUIREMENT

4.2.1   PerformanceRequirements

The performance of the functions and every module must be well. The over-allperformance of the software will enable the users to work eciently. Performance of encryption of data should be fast. Performance of the providingvirtual environment should be fastSafety Requirement.
•The application is designed in modules where errors can be detected and xedeasily. This makes it easier to install and update new functionality if required.

4.2.2   Safety Requirement

The application is designed in modules where errors can be detected and fixed easily. This makes it easier to install and update new functionality if required.

4.2.3   Software Quality Attributes

Our software has many quality attribute that are given below:-

Adaptability: This software is adaptable by all users.

Availability: This software is freely available to all users. The availability of the software is easy for everyone.

Maintainability: After the deployment of the project if any error occurs then it can be easily maintained by the software developer.

Reliability: The performance of the software is better which will increase the reliabilityof the Software.

User Friendliness: Since, the software is a GUI application; the output generated is much user friendly in its behavior.

Integrity: Integrity refers to the extent to which access to software or data by unauthorized persons can be controlled.

Security: Users are authenticated using many security phases so reliable security is provided.

Testability: The software will be tested considering all the aspects.

CHAPTER 5

SYSTEM ANALYSIS

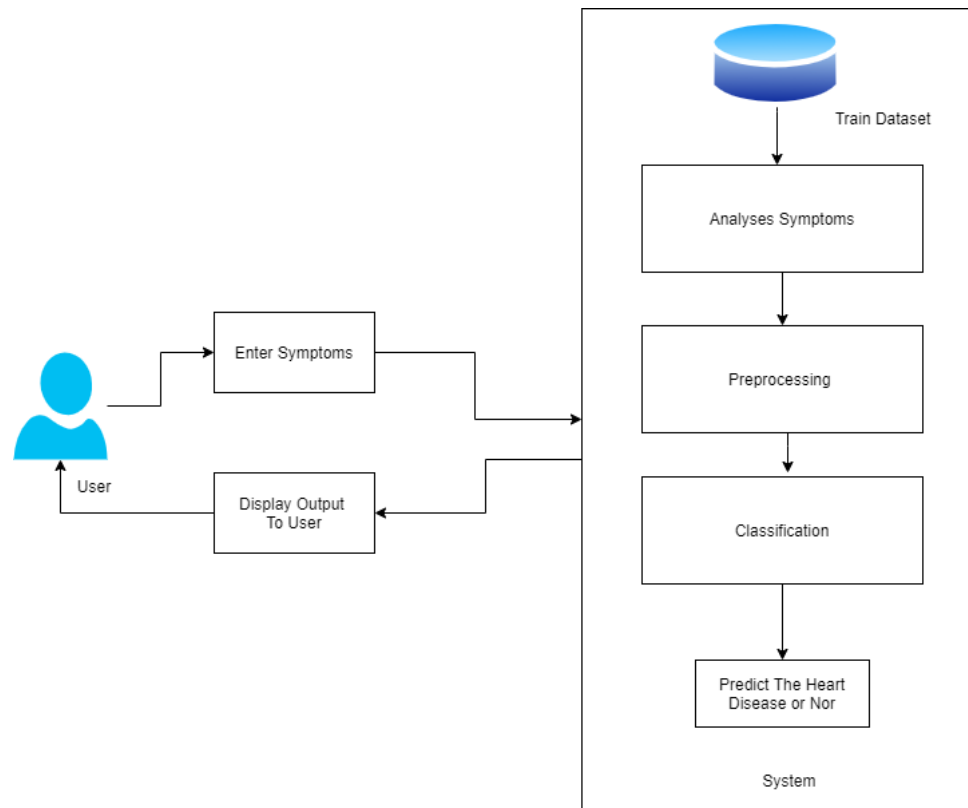## 5.1 SYSTEM ARCHITECTURE

Figure 5.1: System Architecturel

5.1.1 Module

- **Preprocessing**

- **Analyses Symptoms**

- **Classification**

5.1.2 Data Flow Diagram

In Data Flow Diagram,we Show that flow of data in our system in DFD0 we show that base DFD in which rectangle present input as well as output and circle show our system,In DFD1 we show actual input and actual output of system input of our system is text or image and output is rumor detected like wise in
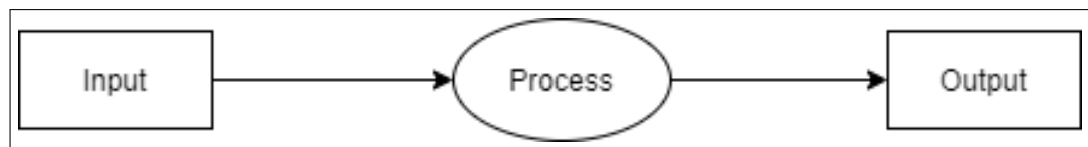
DFD 2 we present operation of user as well as admin.
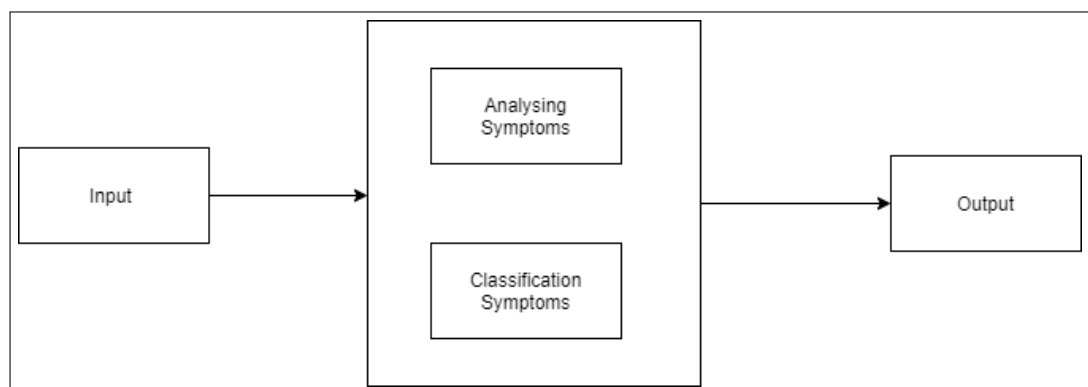
Figure 5.2: Data Flow diagram
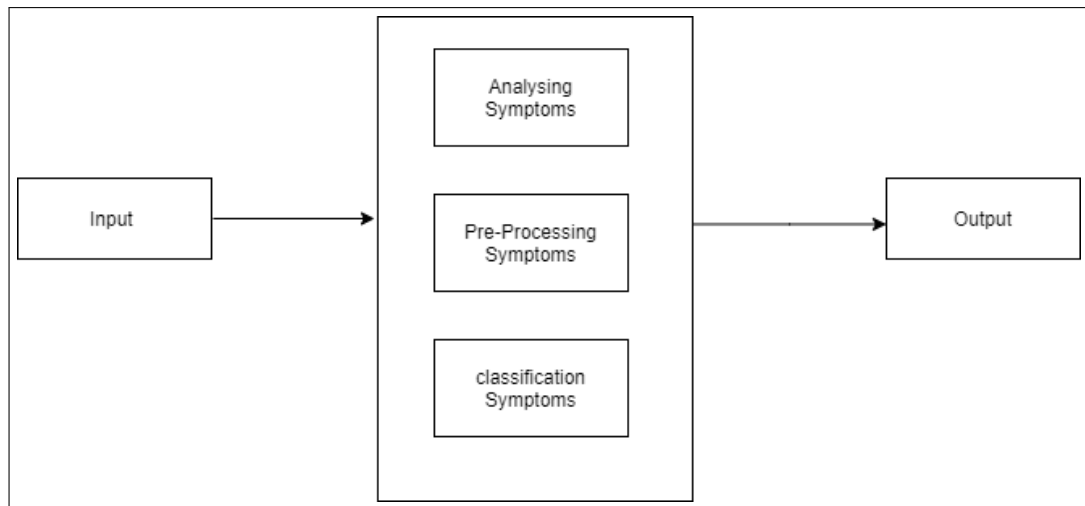

Figure 5.3: Data Flow diagram

Figure 5.4: Data Flow diagram

5.2 UML DIAGRAMS

**Unified Modeling Language is a standard language for writing software blueprints.The
UML may be used to visualize,specify,construct and document the artifacts of
a softwareintensive system.UML is process independent,although optimally it
should be used in process that is use case driven,architecture-centric,iterative,and
incremental.The Number of UML Diagram is available.**

Use case Diagram.

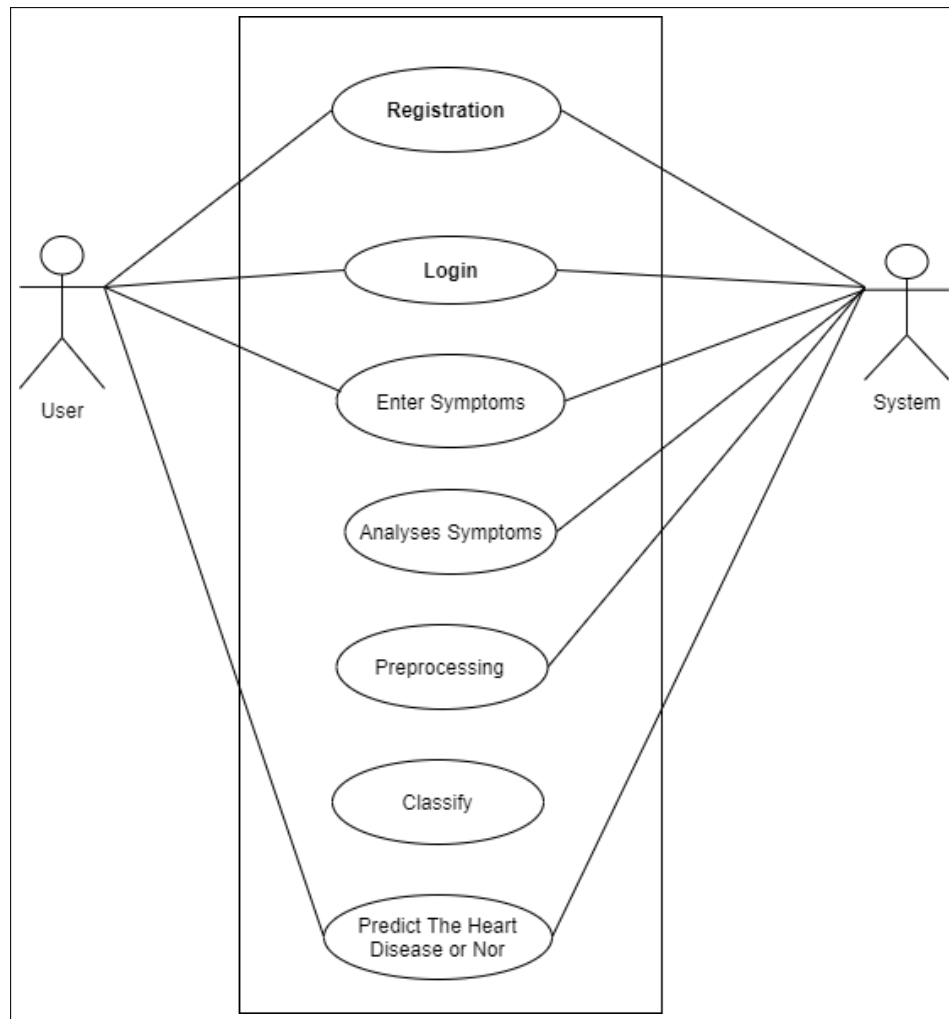**Activity Diagram.**

Sequence Diagram.

Class Diagram.

Figure 5.5: Use case Diagram
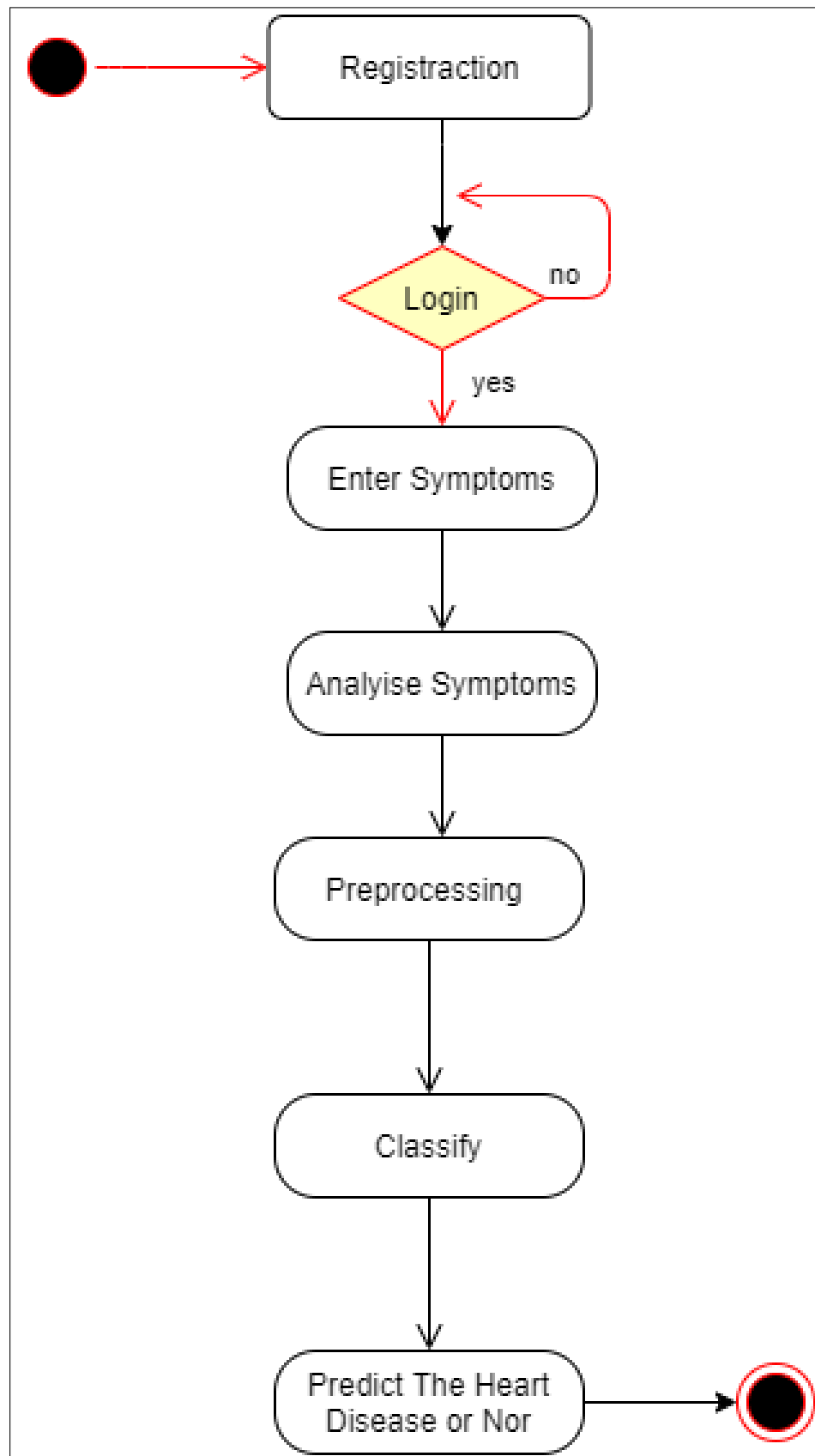
Figure 5.6: Activity Diagram

Figure 5.7: Sequence Diagram

User		Symptoms Readers		Symptoms Analysing
+ field: ID	→	- Symptoms	→	- disease given sysmstor
+ field: Reg()				
+ field: Log()		+get Symptoms() +Predict Disease()		+Prediction disease +Show

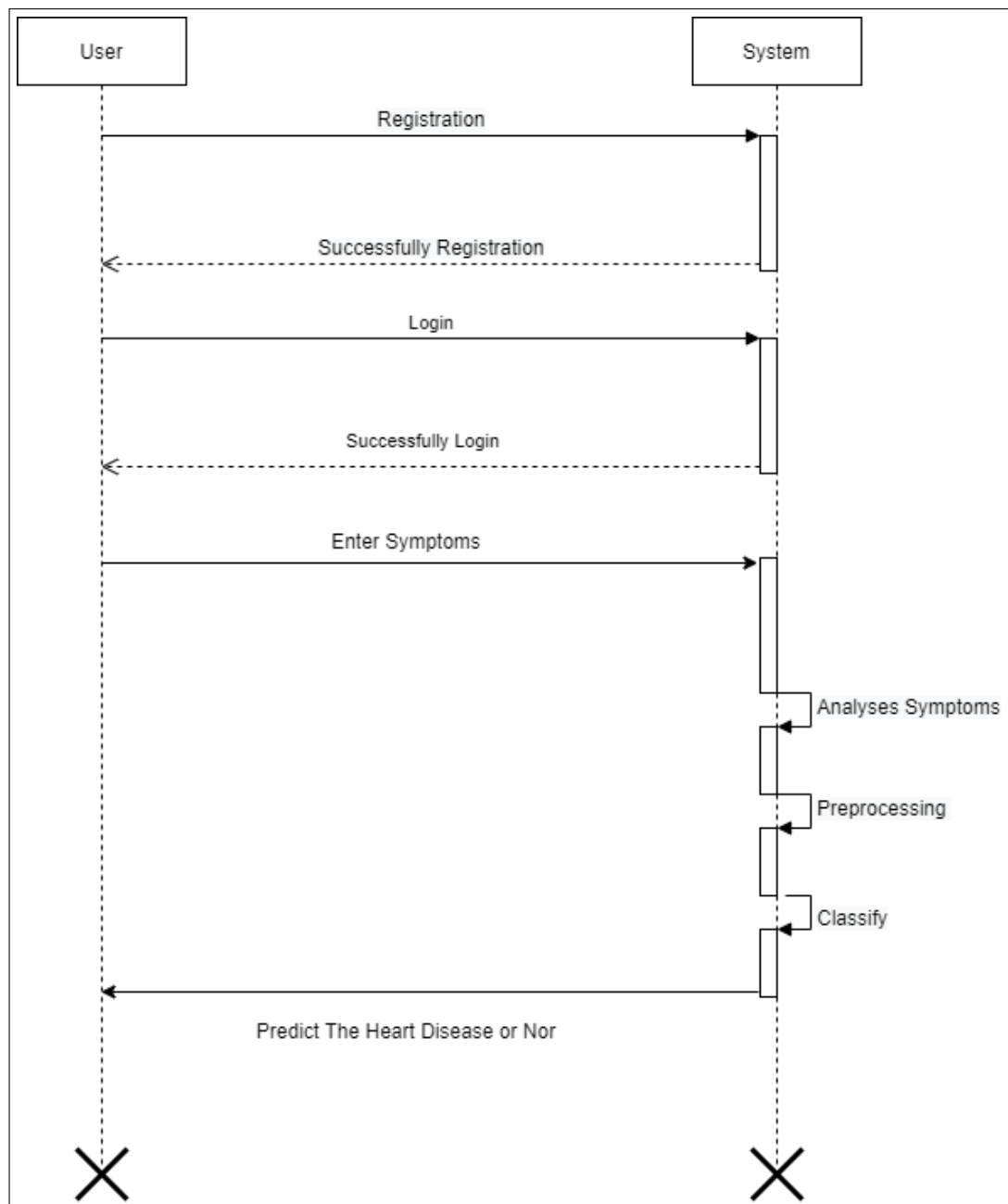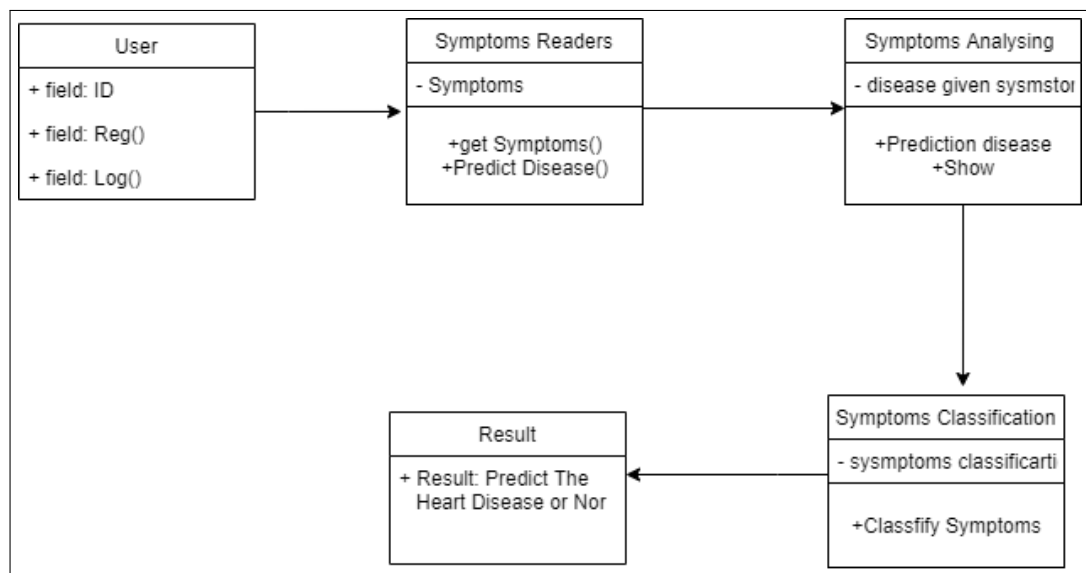| Result		Symptoms Classification
+ Result: Predict The Heart Disease or Nor	←	- sysmptoms classificarti
		+Classfify Symptoms

Figure 5.8: Class Diagram

CHAPTER 6

SOFTWARE INFORMATION

Python is an interpreted, high-level and general-purpose programming language. Created by Guido van Rossum and first released in 1991, Python's design philosophy emphasizes code readability with its notable use of significant whitespace. Its language constructs and object-oriented approach aim to help programmers write clear, logical code for small and large-scale projects.

Python is dynamically typed and garbage-collected. It supports multiple programming paradigms, including structured (particularly, procedural), object-oriented, and functional programming. Python is often described as a "batteries included" language due to its comprehensive standard library.

Python was created in the late 1980s as a successor to the ABC language. Python 2.0, released in 2000, introduced features like list comprehensions and a garbage collection system with reference counting.

Python 3.0, released in 2008, was a major revision of the language that is not completely backward-compatible, and much Python 2 code does not run unmodified on Python 3.

The Python 2 language was officially discontinued in 2020 (first planned for 2015), and "Python 2.7.18 is the last Python 2.7 release and therefore the last Python 2 release."[30] No more security patches or other improvements will be released for it. With Python 2's end-of-life, only Python 3.6.x and later are supported.

Python interpreters are available for many operating systems. A global community of programmers develops and maintains CPython, a free and open-source reference implementation. A non-profit organization, the Python Software Foundation, manages and directs resources for Python and CPython development.

Python was conceived in the late 1980s by Guido van Rossum at Centrum Wiskunde Informatica (CWI) in the Netherlands as a successor to the ABC language (itself inspired by SETL), capable of exception handling and interfacing with the Amoeba operating system. Its implementation began in December 1989. Van Rossum shouldered sole responsibility for the project, as the lead

developer, until 12 July 2018, when he announced his "permanent vacation" from his responsibilities as Python's Benevolent Dictator For Life, a title the Python community bestowed upon him to reflect his long-term commitment as the project's chief decision-maker. He now shares his leadership as a member of a five-person steering council. In January 2019, active Python core developers elected Brett Cannon, Nick Coghlan, Barry Warsaw, Carol Willing and Van Rossum to a five-member "Steering Council" to lead the project.

Anaconda: Anaconda is a free and open-source distribution of the Python and R programming languages for scientific computing (data science, machine learning applications, large-scale data processing, predictive analytics, etc.), that aims to simplify package management and deployment. The distribution includes data-science packages suitable for Windows, Linux, and macOS. It is developed and maintained by Anaconda, Inc., which was founded by Peter Wang and Travis Oliphant in 2012. As an Anaconda, Inc. product, it is also known as Anaconda Distribution or Anaconda Individual Edition, while other products from the company are Anaconda Team Edition and Anaconda Enterprise Edition, both of which are not free.

Package versions in Anaconda are managed by the package management system conda. This package manager was spun out as a separate open-source package as it ended up being useful on its own and for other things than Python. There is also a small, bootstrap version of Anaconda called Miniconda, which includes only conda, Python, the packages they depend on, and a small number of other packages. Anaconda distribution comes with over 250 packages automatically installed, and over 7,500 additional open-source packages can be installed from PyPI as well as the conda package and virtual environment manager. It also includes a GUI, Anaconda Navigator, as a graphical alternative to the command line interface (CLI).

The big difference between conda and the pip package manager is in how package dependencies are managed, which is a significant challenge for Python data science and the reason conda exists.

When pip installs a package, it automatically installs any dependent Python packages without checking if these conflict with previously installed packages[citation needed]. It will install a package and any of its dependencies regardless of the state of the existing installation[citation needed]. Because of this, a user with a working installation of, for example, Google Tensorflow, can find that it stops working having used pip to install a different package that requires a different version of the dependent numpy library than the one used by Tensorflow. In some cases, the package may appear to work but produce different results in

detail.

In contrast, conda analyses the current environment including everything currently installed, and, together with any version limitations specified (e.g. the user may wish to have Tensorflow version 2,0 or higher), works out how to install a compatible set of dependencies, and shows a warning if this cannot be done.

Open source packages can be individually installed from the Anaconda repository, Anaconda Cloud (anaconda.org), or the user's own private repository or mirror, using the conda install command. Anaconda, Inc. compiles and builds the packages available in the Anaconda repository itself, and provides binaries for Windows 32/64 bit, Linux 64 bit and MacOS 64-bit. Anything available on PyPI may be installed into a conda environment using pip, and conda will keep track of what it has installed itself and what pip has installed.

Custom packages can be made using the conda build command, and can be shared with others by uploading them to Anaconda Cloud, PyPI or other repositories.

The default installation of Anaconda2 includes Python 2.7 and Anaconda3 includes Python 3.7. However, it is possible to create new environments that include any version of Python packaged with conda

Spyder

Spyder is an open-source cross-platform integrated development environment (IDE) for scientific programming in the Python language. Spyder integrates with a number of prominent packages in the scientific Python stack, including NumPy, SciPy, Matplotlib, pandas, IPython, SymPy and Cython, as well as other open-source software. It is released under the MIT license.

Initially created and developed by Pierre Raybaut in 2009, since 2012 Spyder has been maintained and continuously improved by a team of scientific Python developers and the community.

Spyder is extensible with first-party and third-party plugins, includes support for interactive tools for data inspection and embeds Python-specific code quality assurance and introspection instruments, such as Pyflakes, Pylint and Rope. It is available cross-platform through Anaconda, on Windows, on macOS through MacPorts, and on major Linux distributions such as Arch Linux, Debian, Fedora, Gentoo Linux, openSUSE and Ubuntu.

Spyder uses Qt for its GUI and is designed to use either of the PyQt or PySide Python bindings. QtPy, a thin abstraction layer developed by the Spyder project and later adopted by multiple other packages, provides the flexibility to use either backend.

Features

- An editor with syntax highlighting, introspection, code completion

- Support for multiple IPython consoles

- The ability to explore and edit variables from a GUI

- A Help pane able to retrieve and render rich text documentation on functions, classes and methods automatically or on-demand

- **A debugger linked to IPdb, for step-by-step execution Static code analysis, powered by Pylint**

- **A run-time Profiler, to benchmark code**

- **Project support, allowing work on multiple development efforts simultaneously**

- **A built-in file explorer, for interacting with the filesystem and managing projects**

- **A "Find in Files" feature, allowing full regular expression search over a specified scope**

- **An online help browser, allowing users to search and view Python and package documentation inside the IDE**
  history log, recording every user command entered in each console

- **An internal console, allowing for introspection and control over Spyder's own operation**

CHAPTER 7

PROJECT PLAN

In this chapter we are going to have an overview about how much time does it took to complete each task like- Preliminray Survey Introduction and Problem Statement, Literature Survey, Project Statement, Software Requirement and Specification, System Design, Partial Report Submission, Architecture Design, Implementation, Deployment, Testing, Paper Publish, Report Submission and etcetera. This chapter also gives focus on stakeholder list which gives information about project type, customer of the proposed system, user and project member who developed the system.

7.1 STAKEHOLDER LIST

Sr. No.	Stackholder	
1	Project Type	
2.	Customer	
3	User	

7.2 SYSTEM IMPLEMENTATION PLAN

The System Implementation plan table, shows the overall schedule of tasks compilation and time duration required for each task.

Sr. No.	Name/Title	Start Date	End Date
1	**Preliminary Survey**		
2	**Introduction and Problem Statement**		
3	**Literature Survey**		
4	**Project Statement**		
5	**Software Requirement And Specification**		
6	**System Design**		
7	**Partial Report Submission**		
8	**Architecture Design**		
9	**Implementation**		
10	**Deployement**		
11	**Testing**		
12	**Paper Publish**		
13	**Report Submission**		

CHAPTER 8

CONCLUSION

8.1 CONCLUSION

This project aims to predict the heart disease on the basis of the symptoms. The project is designed in such a way that the system takes symptoms from the user as input and produces output i.e. predict heart disease. Average prediction accuracy probability of 55obtained. heart Disease Predictor was successfully implemented using grails framework.

CHAPTER 9

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