Assignment-2

Case Study: Implementation of SDLC in Predicting ICU Admissions based on covid-19 patients blood count data

SDLC Phases in the icu Admission prediction system project

1)Planning:-

->Define project scope, goals, timeline and budget.

->Identify stakeholders including healthcare providers.

2)Requirement gathering:-

->Collect covid 19 patients blood count data and icu admission records

3)Design:-

->Design the system architechture including machine learning models and user interface

4)Coding:-

->Implement machine learning models using python and libraries

->Create user friendly dashboard for healthcare providers to view predictions.

5)Testing:-

->Conduct unit testing

->Validate the machine learning model using historical data, ensuring it met accuracy requirements.

->Conduct user acceptance testing with healthcare providers

6)Deployment:-

->Deploy the system on a secure cloud platform ensuring with healthcare regulations and policies.

->Provide training and documentation for healthcare providers.

Evaluation of SDLC Contributions to Project Outcomes

1)Requirements gathering:

Essential for understanding the specific needs of healthcare providers and defining accurate and practical system requirements.

2)Design:

Critical for creating a robust and scalable system architechture that facilitated efficient data processing and model implementation.

3)Coding:

Enable the creation of reliable data pipelines and a high performing machine learning model, ensuring accurate predictions.

4)Testing:

Ensured that the system was reliable , accurete, and user-friendly, leading to high user satisfaction and trust

5)Deployment:

Careful planning and execution of deployment minimized disruptions and ensured a smooth transition of the live environment.