**PREDICTING IMDB SCORES**

**PROJECT DEFINITION :**

The project aims to develop a machine learning model for predicting IMDb scores for movies or TV shows based on various features such as cast, crew, genre, budget, runtime, and more. The goal is to create a predictive tool that can assist filmmakers, studios, and streaming platforms in estimating the potential success of a production on IMDb.

**DESIGN THINKING APPROACH :**

# 1. Empathize:

* **Objective:** Understand the needs and perspectives of users, which, in this case, are filmmakers and studios.
* **Activities:** Conduct interviews, surveys, and research to gather insights into what filmmakers and studios expect from IMDb score predictions, what factors influence their decision-making, and what challenges they face.
* **Outcome:** Gain a deep understanding of user needs and pain points.

# 2. Define:

* **Objective:** Clearly articulate the problem statement and project goals.
* **Activities:** Define the scope of the project, set specific objectives (e.g., model accuracy targets), and establish usability requirements.
* **Outcome:** A well-defined project scope and clear objectives.

# 3. Ideate:

* **Objective:** Brainstorm potential features and algorithms that could be used to predict IMDb scores effectively.
* **Activities:** Explore different features, such as cast, crew, genre, budget, runtime, and consider various machine learning algorithms suitable for regression tasks.
* **Outcome:** A list of potential features and modeling approaches.

# 4. Prototype:

* **Objective:** Build an initial model and a user interface for IMDb score predictions.
* **Activities:** Develop a machine learning model using a subset of your data. Create a user-friendly interface for inputting movie/show details and viewing predicted scores.
* **Outcome:** A working prototype that demonstrates the concept.

# 5. Test:

* **Objective:** Collect feedback and refine the prototype.
* **Activities:** Test the prototype with a diverse group of users, including filmmakers and studios, to gather their input. Use their feedback to improve the model and interface.
* **Outcome:** A refined model and user interface based on user feedback.

# 6. Iterate:

* **Objective:** Continuously improve the model based on user feedback and additional data.
* **Activities:** Incorporate user feedback and explore advanced machine learning techniques to enhance the prediction accuracy.
* **Outcome:** An iteratively improved model.

# 7. Implement:

* **Objective:** Develop a production-ready tool.
* **Activities:** Transition from the prototype to a fully functional application or service. Ensure scalability and robustness of the system.
* **Outcome:** A production-ready IMDb score prediction tool.

**8. Monitor:**

* **Objective:** Continuously track the performance of the model.
* **Activities:** Implement monitoring and reporting mechanisms to evaluate the model's performance over time, including model drift and accuracy.
* **Outcome:** Ongoing model performance evaluation.

**9. Launch:**

* **Objective:** Make the IMDb score prediction tool available to users.
* **Activities:** Launch the tool to your target audience, such as filmmakers and studios. Provide necessary training and support for users.
* **Outcome:** Tool availability and user support.

**10. Evaluate:**

* **Objective:** Assess the impact of the tool and make necessary improvements.
* **Activities:** Continuously gather user feedback and evaluate the tool's effectiveness in assisting decision-making by filmmakers and studios. Make improvements based on the assessment.
* **Outcome:** Improved tool and data-informed decision-making for users.

**CONCLUSION :**

By following this design thinking approach, you will create a predictive IMDb score tool that is not only technically robust but also user-centered and capable of evolving to meet user needs.