easyMoney
Make your dreams come true

COMMENTS

1 Understanding Objective:

Key Aspects:
To revise the model, the diagram includes notes on when to upgrade server capabilities and points where clustering, recommendation and other changes should be reviewed.

For Business Goals:
- Problem definition: Understanding the problem that needs to be solved with machine learning
- KPIs: Identify and define what key performance indicators will be used to measure the success of the model in achieving business goals
- Hypothesis: How the model will solve the business problem and affect KPIs

For the Model Developement:
- Collaborative filtering using SVD modelling is utilised for its efficiency in light of resource and time constraints.
- While neural networks are ideal for recommendations, SVD is chosen due to current limitations.

For Model Serving:
- Real-time data and customer feedback should be considered for continuous improvement of recommendations
- During the Monitoring, we will continue to refer back to the KPIs to evaluate the performance of the models and the effectiveness of the data pipeline. Monitoring tools and dashboards will be used to keep track of these KPIs in real-time to ensure that the models are delivering value and to spot when it's time for updates or adjustments.
- Monitoring customer behaviour : customers might change their behaviour, product preferences, or interact differently with the services offered, leading them to fit into a different cluster as time progresses. If the clustering model is retrained with new data, the boundaries of clusters may shift, causing customers who were once in one cluster to be reassigned to another. Also, Customers go through various life stages, and their financial needs, spending habits, and risk profiles evolve, so it's important It is essential to monitor these changes as they can provide valuable insights into how customer preferences evolve and help you adapt your strategies

2 How to use this board?

The **purpose of this board** is to craft a system that ensures the EasyMoney team has a comprehensive overview of the plan to follow, along with the workflow and steps necessary in the MLOps process, ensuring a cohesive and effective approach.
This setup will serve as a dynamic tool to foster team coherence and goal setting, making it clear how every member, from individual contributors to team leaders, plays a part in achieving our collective objectives.

MLOps Project Planning Proposal

Legend
- Data Preparation
- Model Developement
- Model Training
- Model Serving
- "Workflow Timeline"

Business Goals
1. Problem Definition
2. KPI's
3. Hypothesis

" Week 1 & 2"

Step 1: Data Preparation

Key Aspects
1. Deploy initial data preparation tasks on a basic server setup adequate for the data volume and complexity.
2. Regularly revisit and update the data schema in response to changing data or business requirements

"Week 3 & 4"

Step 2: Model Developement

Key Aspects
1. Use an enhanced server capable of handling more intensive computational tasks for complex model development
2. Refine clustering and recommendation algorithms based on performance feedback and new insights

"Week 5 & 6"

Step 3: Model Training

Key Aspects
1. Conduct thorough training of the chosen model, tuning hyperparameters for best results
2. Performance Threshold and implement monitoring systems to track model training performance

"Week 7 & 8"

Step 4: Model Serving & Monitoring

Key Aspects
1. Monitor Degradation & Revise: Continuously monitor the model for any performance degradation and apply revisions as necessary to maintain accuracy.

" Week 1"

Data Source

Key Aspects
1. Identify and access the data sources needed for our project
2. Connect to a database and API to collect data. Ensure data quality and consistency.

"Week 3"

Model Developement

Key Aspects
1. Create and fine-tune models
2. Revise the model Collaborative filtering using SVD modelling

"Week 5"

Trained Model

Key Aspects
1. Prepare the trained model with finalized parameters for deployment into a production environment

"Week 7"

Model Serving

Key Aspects
1. Deploy the trained model for inference
2. Launch the trained model in a production environment to start making predictions or recommendations

" Week 1"

Raw Data

Key Aspects
1. Gather raw data from the data source
2. Extract raw data ensuring it is complete and unaltered for initial processing

"Week 4"

Optimal Model

Key Aspects
1. Use an enhanced server capable of handling intensive computational tasks for complex model development
2. Revise & refine clustering and recommendation algorithms based on performance feedback and new insights

"Week 6"

Server

Key Aspects
1. Utilize high-performance servers to expedite the model training process, ensuring scalability and reliability

"Week 8"

Live data Injection

Key Aspects
1. Introduce real-time data into the model for dynamic prediction
2. Feed live data into the model to obtain real-time insights and decision-making capabilities

" Week 2"

Feature Store & Engineering

Key Aspects
1. Transform, select and derive new relevant features that will be used to develop and to improve the model
2. Centralized storage of curated features ready for use in