Scenario



Our product is used by users from different countries, devices, and industries. The goal is to predict:

- Which users are likely to make a payment?
- Which users are at risk of churn?
- Which users are good candidates for upselling?

using an Al-supported model.

By analyzing user events (e.g., login, checkout, payment, logout rates), we aim to understand how these behaviors affect user decisions and sales outcomes. Al will be used to predict user behavior and segment them accordingly, enabling targeted sales strategies. A real-time dashboard will also be created to visualize the predictions and user behavior, though it will be a secondary task.

Tasks



Merge User Profiles and Event Data

- Combine user profile data (e.g., demographics, devices) with user event data (e.g., login rates, checkout behavior, payments, logouts).
- Create a unified dataset to facilitate analysis and predictions.

2. Analyze User Events and Sales Impact

- Examine how user events (such as logins, payments, and checkouts) influence the likelihood of making a purchase.
- Identify key behavior patterns that correlate with higher sales conversions.

3. Use AI for Predictive Modeling

- Utilize AI models (e.g., classification, regression, or clustering) to predict: High Value Users, Churn Risk, Growth Potential Users.
- Al should be used for segmentation, creating groups of users with similar behaviors or tendencies.

4. Segment Users Based on Predictive Insights

• Use the AI model to segment users into categories: High Value Medium Value Churn Risk Growth Potential.

Tasks



1. Create a Real-Time Tracking Dashboard

- Integrate the predictions from the AI models into a real-time dashboard.
- The dashboard will:
- Display user segments in real-time.
- Show how user events (like logins or checkouts) correlate with the predicted likelihood of payments.
- Dashboard development is secondary but will enable easier tracking and decision-making.

2. Automate the Process Using AI and Optional Python

- Automate the segmentation and prediction pipeline with AI, ensuring continuous updates of user segments.
- While Python scripting may be helpful for data processing, the primary focus will be on integrating AI for predictive analytics and automating the entire workflow.

Tasks



Expected AI Tools:

- For model training, prediction, and segmentation (e.g., machine learning frameworks like TensorFlow, scikit-learn, or OpenAI models).
- Pandas / Numpy: For data manipulation and analysis (optional, based on comfort level).
- Dashboard Tools (Retool, Dash, Power BI, Tableau): For visualizing user segments and sales metrics in real-time.
- Automation Tools (Optional): Zapier, n8n for integrating insights into external platforms (e.g., CRM, marketing tools).

Deliverables

- AI Models: Fully trained and integrated AI models for predicting user behavior and segmenting users into categories.
- Step-by-Step Documentation (.md or .pdf): Explaining the model development process, how to execute predictions, and how to use the results.
- User Segments and Predictions (.csv or .json): Data files containing the segmented user lists and their predicted behaviors.
- Real-Time Dashboard: A fully functional dashboard for monitoring predictions and user event metrics (optional but recommended for ease of use).