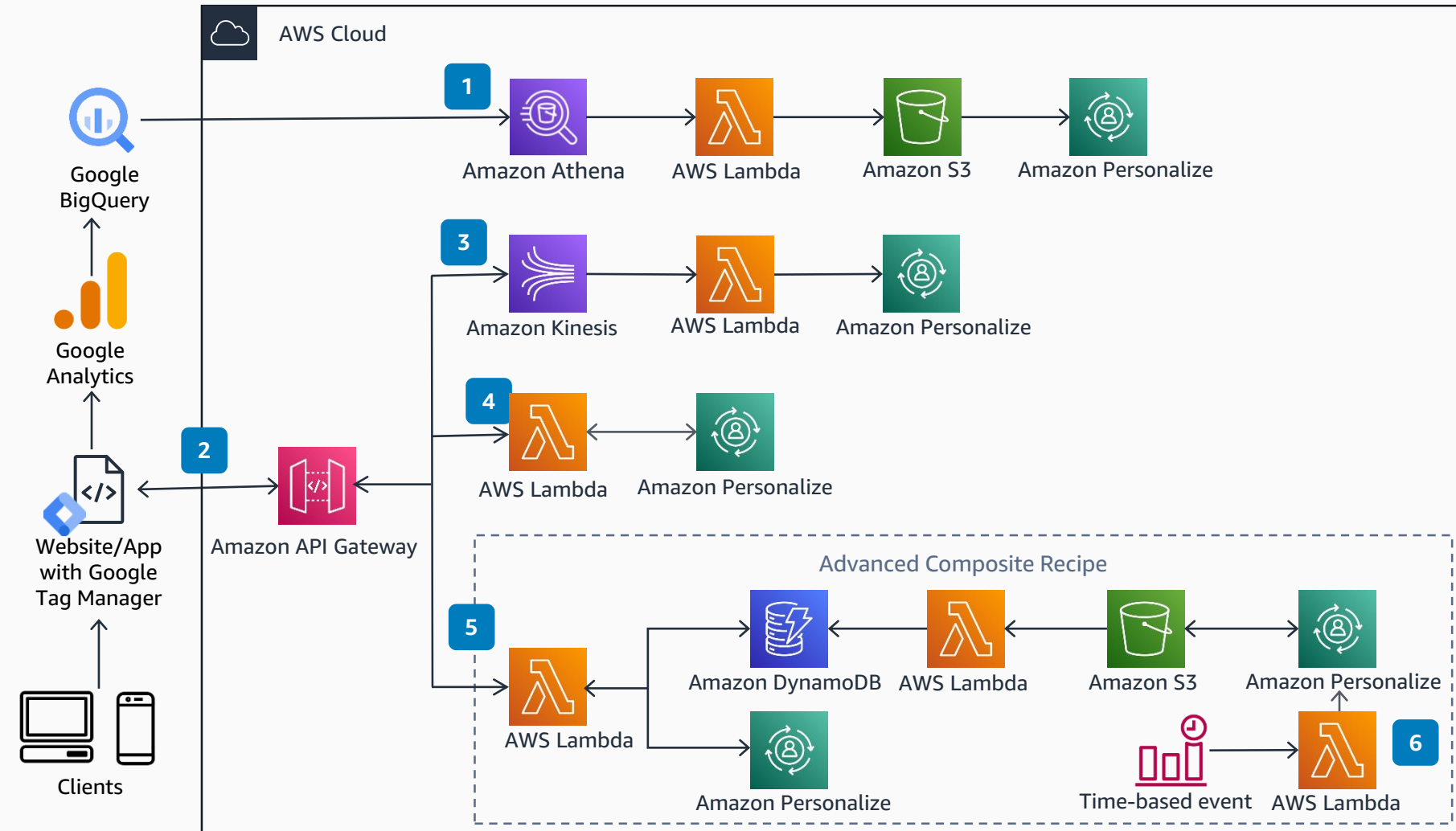


Guidance for Near Real-Time Personalized Recommendations on AWS

In this architecture, user interaction events, such as view and purchases, are collected using Google Tag Manager (GTM). These events are then ingested as clickstream data into Amazon Personalize. Amazon Personalize fine-tunes the recommendations for the user based on this data.



- 1** Amazon Athena queries and exports historical user interaction data from Google Analytics to Amazon Simple Storage Service (Amazon S3) using Google BigQuery. This data is used to train the Amazon Personalize user recommendation model.
- 2** The user interacts with a website or a mobile app that uses Google Tag Manager (GTM) tags to track user interactions.
- 3** A GTM tag submits the user interaction event to Amazon API Gateway. The user event record is sent to Amazon Kinesis. AWS Lambda reads the records from the Kinesis stream and submits it to Amazon Personalize.
- 4** A GTM tag gets recommendations for the user. Amazon Personalize recommends items using the Recommended For You Recipe.
- 5** **Advanced Composite Recipe:** The user adds items to their cart. A GTM tag requests recommended items for cross-sell. Lambda gets "similar item" recommendations from Amazon DynamoDB and re-ranks with a User Personalized Ranking Recipe in Amazon Personalize, including promotional items.
- 6** An Amazon EventBridge time-based event triggers Lambda, which starts an Amazon Personalize batch inference to get similar items. Inference results are stored in Amazon S3, and Lambda writes them to DynamoDB for use in the Advanced Composite Recipe.

