Mobile In-App Purchase Validation on AWS
An architecture for validating in-app purchases and managing refunds on AWS with a serverless backend

1. The mobile game client makes a purchase using the OS-specific SDK and stores the receipt locally.
2. The game client makes an API request to Amazon API Gateway to validate receipt and receive purchased items.
3. The AWS Lambda function checks the “Transactions” table in DynamoDB to validate that the receipt is not yet used.
4. The AWS Lambda function validates the receipt through the Google Play Store or Apple App Store API.
5. Once validated, the Lambda function adds items to the “PlayerData” table in DynamoDB, and adds the receipt to the “Transactions” table in DynamoDB with any additional metadata.
6. The Lambda function validates the receipt through the Google Play Store or Apple App Store API.
7. The client receives a success message. The client locally synchronizes the purchased items data, and deletes the local receipt copy.

API Gateway receives notifications on refunded transactions on iOS.
A scheduled Lambda function queries refunded transactions on Android.
Refunded transactions are pushed to an Amazon SQS queue by the Lambda functions.
A Lambda function handles the refund, including any additional actions like closing the player account.
A Lambda function updates the DynamoDB tables to remove items and mark the transaction refunded.