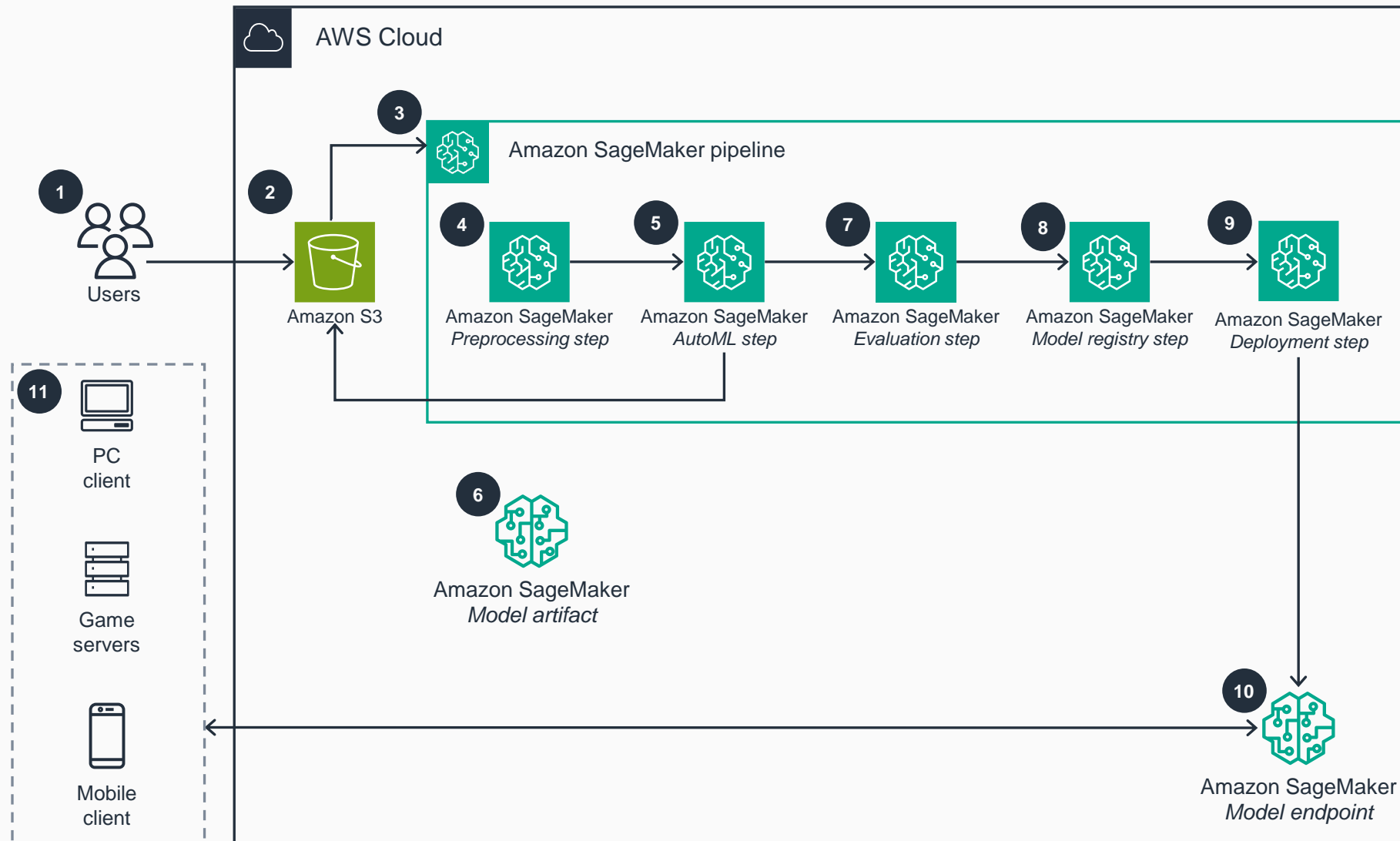


# Guidance for Predicting Player Behavior with AI on AWS

This architecture diagram shows the process of automatically training a machine learning model to predict player behavior, powered by artificial intelligence (AI).



- 1 Users capture player event data from their game.
- 2 Tabular player data is uploaded to an **Amazon Simple Storage Service (Amazon S3)** bucket.
- 3 The tabular data upload event invokes **Amazon SageMaker** pipelines.
- 4 The Preprocessing step runs a **SageMaker** processing job to split the CSV data into training and validation datasets.
- 5 The automatic machine learning (AutoML) step creates a **SageMaker** AutoML job to automatically train a machine learning (ML) model.
- 6 The trained model artifacts are stored in an **Amazon S3** bucket.
- 7 The Evaluation step runs a **SageMaker** processing job to compare the performance of the trained ML model against the validation dataset.
- 8 The trained model is stored in the SageMaker Model Registry.
- 9 The registered ML model is deployed for production use.
- 10 The registered ML model is hosted as a model endpoint using **SageMaker**.
- 11 Game clients make inference requests to the hosted model to derive player insights and predict in-game player behavior.



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**AWS Reference Architecture**