

Please explain with example, what is models and mapping templates in API Gateway.

In API Gateway, models and mapping templates are used to define the structure and transformation of data for incoming requests and outgoing responses. They play a crucial role in shaping the data format that flows through the API Gateway, allowing us to define a consistent schema and handle data transformations between different formats.

Suppose you have an API that receives requests to create a new user. The request payload contains data such as the user's name, email, and age. To handle this request, you can define a model in API Gateway that represents the structure of the user data.

1. **Models:** In API Gateway, a model is a schema or structure that defines the expected format and validation rules for the request or response payload. You can define models using JSON Schema or by importing an existing model file. In our example, you would define a user model that specifies the properties and their types (e.g., name: string, email: string, age: number).
2. **Mapping Templates:** Mapping templates allow you to transform the incoming request payload and outgoing response payload between different data formats, such as JSON, XML, or any other custom format. Mapping templates use the Velocity Template Language (VTL) to perform the transformations. They are applied before the request is sent to the backend service and before the response is returned to the client.