**Discussion 3.1 – Describing an API with API Description Format**

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# What does API really is?

API stands for Application Programming Interface. In the context of APIs, the word Application refers to any software with a distinct function. Interface can be thought of as a contract of service between two applications. This contract defines how the two communicate with each other using requests and responses.

# How to identify its goals from the consumer’s perspective?

In the API economy, API consumers are your “customers,” and their collective opinion will determine the success of your APIs. APIs should never be built for internal stakeholders – the product owner, the project manager, or the employer. They should always be built for customers.

Start any new API product, project, or design by digging into three areas to understand these customers:

1. Who they are.
2. What needs they have, what circumstances they face, what tasks they want to perform, what pains they have, and what benefits they would appreciate.
3. How an API can fulfill their needs, improve their circumstances, help perform their tasks, relieve their pains, and create real benefits for them.

The first two points help to build an understanding of the market for your API, which consists of customers and their needs. Only with this market understanding as a basis can you tackle the third point and construct APIs that satisfy the needs of the market and achieve product-market fit.

# How to transpose them into a programmable representation?

To convert the goals of the consumer’s perspective we need to identify the resources necessary and the way they are organized. Then identify each available action related to the resources, along with parameters and returns. After identifying them we can start to program the HTTP methods to represent actions.

# How to formally describe the programmable representation using OAS?

You can formally describe the programmable representation using Open API Specification, specifically with a JSON or YAML file providing general information about the API, such as it’s name, version, resources, resource’s actions, parameters, responses, etc. There are tools to create such files, the suggested by the author is the Swagger editor.

Sources: <https://aws.amazon.com/what-is/api/#:~:text=API%20stands%20for%20Application%20Programming,other%20using%20requests%20and%20responses>.

<https://blog.softwareag.com/api-economy/>

The Design of Web APIs – Lauret