Assignment 03.01.01

Domain Analysis

Context:
Let's see how we can apply the notion of subdomains in practice and use it for making a number of strategic design decisions. Here are two fictitious companies: Gigmaster and BusVNext. As an exercise, while you are reading, analyze the companies' business domains. Try to identify the three types of subdomains for each company. Remember that, as in real life, some of the business requirements are implicit.

Disclaimer: of course, we cannot identify all the subdomains involved in each business domain by reading such a short description. That said, it is enough to train you to identify and categorize the available subdomains.

Group Assignment: These tasks are to be performed in groups, encouraging collaboration to ensure a comprehensive analysis and diverse input.
Duration: 30 minutes

Exercise 1: Gigmaster

Scenario:

Gigmaster is a ticket sales and distribution company. Its mobile app analyzes users' music libraries, streaming service accounts, and social media profiles to identify nearby shows that its users would be interested in attending.

Gigmaster's users are conscious of their privacy. Hence, all users' personal information is encrypted. Moreover, to ensure that users' guilty pleasures won't leak out under any circumstances, the company's recommendation algorithm works exclusively on anonymized data.

To improve the app's recommendations, a new module was implemented. It allows users to log gigs they attended in the past, even if the tickets weren't purchased through Gigmaster.

Assignment Goals:

- Identify core, supporting, and generic subdomains.
- Propose design and strategic decisions regarding how each domain should come to exist (inhouse, outsource, etc.)

Deliverables:
Prepare a concise report about your findings to share with the class.

Exercice 2: BusVNext

Scenario:

BusVNext is a public transportation company. It aims to provide its customers with bus rides that are comfortable, like catching a cab. The company manages fleets of buses in major cities.

A BusVNext customer can order a ride through the mobile app. At the scheduled departure time, a nearby bus's route will be adjusted on the fly to pick up the customer at the specified departure time.

The company's major challenge was implementing the routing algorithm. Its requirements are a variant of the "traveling salesman problem". The routing logic is continuously adjusted and optimized. For example, statistics show the primary reason for canceled rides is the long wait time for a bus to arrive. So, the company adjusted the routing algorithm to prioritize fast pickups, even if that means delayed drop-offs. To optimize the routing even more, BusVNext integrates with third-party providers for traffic conditions and real-time alerts.

From time to time, BusVNext issues special discounts, both to attract new customers and to level the demand for rides over peak and off-peak hours.

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