



Kuehne Nagel Information Technology School

Portfolio Project

Project Ideas



Introduction

Basic terminology and a grid of evaluation

Product drivers



Business Domain



All data and process involved into this business

Technology



Software and Hardware

Market



What problem this product will solve?

Product drivers and roles







Software Analyst





Sales

Marketing

How to identify values in product



DATA



Where product data will come from?

i.e External systems, user entries, AI agents, IOT devices

SERVICES



What are the services that product will provide on top of those data?

i.e payment on line, reservation, analytics, sales, search

USERS



What value will those services provide to final users?

i.E monitor and audit processes, buy products, book services, find supplier?

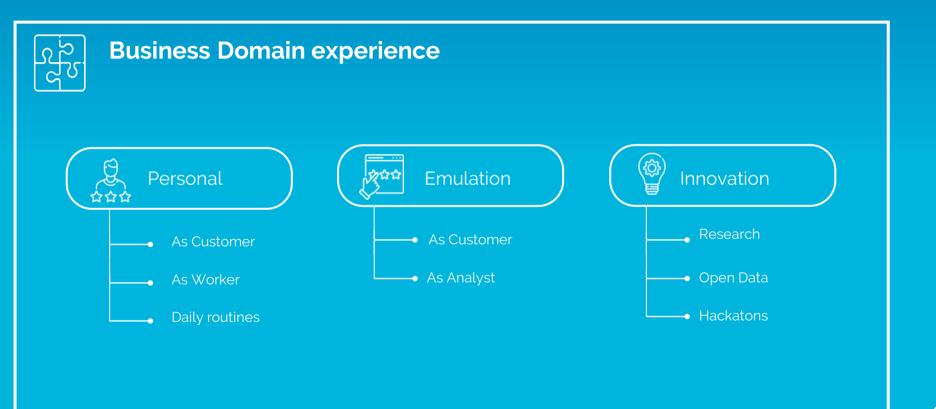


Domain Experience

Where is possible to find the relevant know how

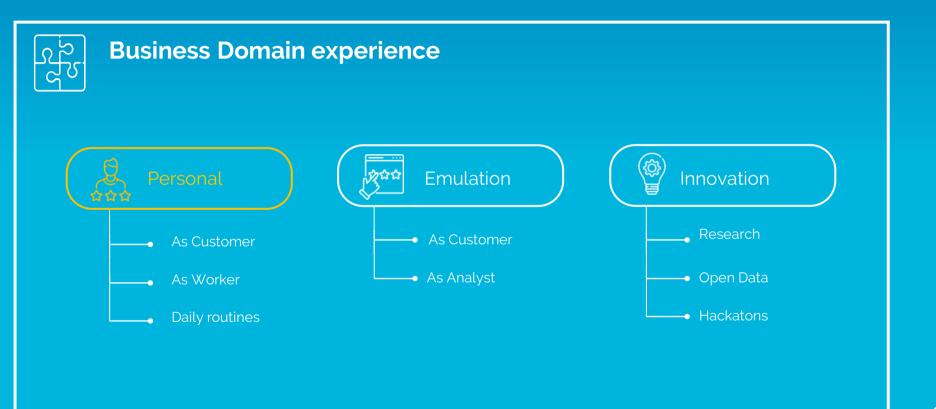
Domain Driver: Resources





Domain Driver: Resources





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Personal customer experience

Some examples

Experience as passenger in transportation..

Experience as customer in restaurant.

Experience as customer in supermarket.

What are processes I can guess?
What could be a software designed to help this kind of business?

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Personal working experience

Some examples

Experience **as a shop keeper** could help to understand warehouse management, sales through ecommerce, supplier's order management, etc.

Experience **in hotel reception** could help to understand reservation management, additional services, check in and check out processes, etc.

Experience **in manufacturing** could help to understand material supply management, production schedule, human resources management, project management, etc.

Personal daily routines



Some examples

Time management system.

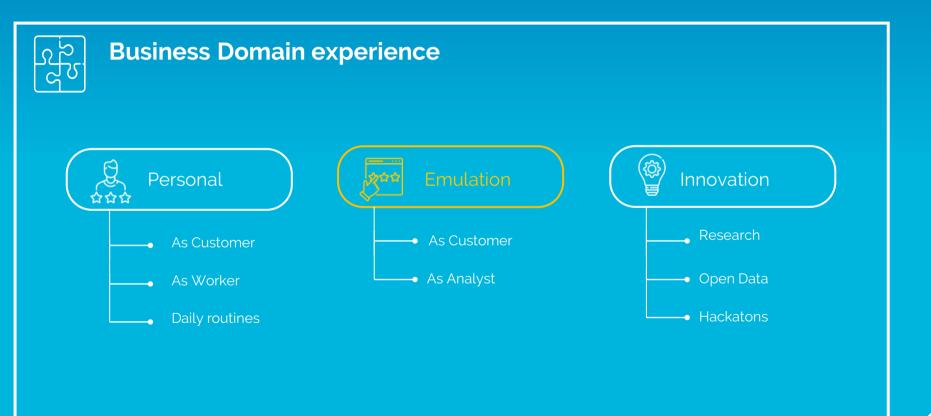
How you use your time? How many minutes you are spending on X? How much you would like to invest in Y? How much reality was matching with plans? How many hours you'd like to allocate to next goal?

Budget System:

How you spend your money? Track expenses and set a budget for different categories. See in the long run what is expected, and what you can change with your management.

Domain Driver: Resources





Emulator's customer experience



Some examples

Reservation Systems:

Airplane companies, accommodation, event at venues, transportations

Public Advertisement:

Real Estate, Second Hand, Ebay

Real time systems:

Betting systems, Games on line

Emulator's Analyst steps



- O Choose a category of software products
- Select a subset of products to analyze
- Compare the Learn about product\by documentation
- O Choose best combination of features from products

Emulator<u>'</u>s Analyst steps





Choose a category of software products

Reviews of softwares by categories:

https://www.goodfirms.co/directories/software

https://www.capterra.com/categories

https://www.softwareadvice.com/categories

https://www.predictiveanalyticstoday.com

Emulator<u>'</u>s Analyst steps





Select one or more products to analyze

Evaluate quality and availability of product documentation

User manual

Video tutorial

Demo on the cloud

Blog

Open Source

Good reviews

Emulator<u>'</u>s Analyst steps





Learn about product\by documentation

User manual as specification (interview with customer)

User and roles

Features and goals

Processes

Categorize features

Prioritize features

Get into data details

User interface

Emulator<u>'</u>s Analyst steps





Choose best combination of features from products

If you have more than one product in focus you can

Compare features

Compare user interactions

Merge best practice

Improve features

Simulators - Game



Some examples

On Logistics

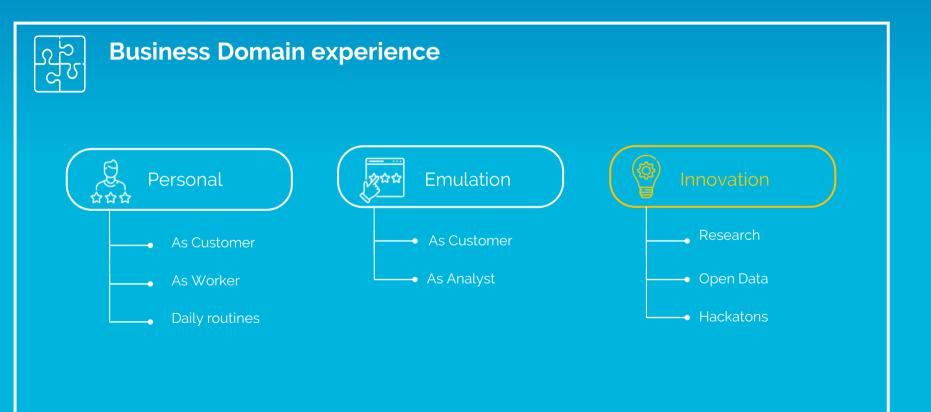
https://www.logitycoon.com

General List:

https://en.wikipedia.org/wiki/Listof_business_simulation_video_games

Domain Driver: Resources





Innovation Research – Topics of our main interest



- O Circular economy
- Smart Cities
- O Green supply chain
- JIT Supply Chain management
- Automation and Robotics in Supply Chain

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Innovation and Open data

Some links to api:

https://www.programmableweb.com/

https://rapidapi.com/

https://public-apis.io/

https://apis.guru/browse-apis/

http://apis.io/

https://apilist.fun/

https://explore.postman.com/

https://apiharmony-open.mybluemix.net/public

https://developers.google.com/apis-explorer/#p/

https://sdks.io/?

Some Additional resources



World Open Data:

https://datacatalog.worldbank.org/search

Europe Open Data:

https://data.europa.eu/euodp/en/data/

Estonia Open Data:

https://opendata.riik.ee/en/andmehulgad/

Tallinn Open Data:

https://avaandmed.tallinn.ee/eng/

Some Additional resources



One nice article on How to handle Side Projects:

https://dzone.com/articles/a-software-developers-guide-to-side-projects

Startup Projects:

https://www.producthunt.com/

Startup Estonia:

https://startupestonia.ee/startup-database

Startup and Hackatons:

http://garage48.org/



Time to choose...

How to choose your next project

Portfolio Project (} Role and time investment 0 ** ** ** Customer 0 Worker ** ** ** 0 Utility * * 0 *** Customer ** 0 Analyst $\star\star\star$ *** \star 0 *** *** *** Research 0 Open Data *** *** *** *** $\star\star\star$ $\star\star\star$ Hackatons

How to choose next project



- Technological challenge
- O Best Time ROI
- O Consistent with your CV
- O Business is interesting