Designing complex softwares.

PLAN

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# Abstract:

# Introduction:

# Context and Research problem

## Context

### AXA Bank Information System Department (ISD)

The organization of AXA Bank Information System Department

…

### The missions within the DSI Laboratory *(DSI Lab’)*

Missions:

Conducting, in a scrum based way, applications development for diverse ISD projects.

My missions:

Participating to the designing of java based applicative systems providing customer services.

Achieve experimental tasks about technologies that may be used for future projects.

…

The problems:

…

The Research Problem:

How to Design and Develop complex Software in order to tackle the previous problems?

### What is Design, develop, complex software?

…

Defining each keyword in order to get rid of ambiguity

…

### Fined grained view and sub categories of the problem

…

According to the previous definitions, reformulate the problem and get sub problems out of it and categorize them in terms of designing issues, implementations issues and approach concreteness issues.

…

# State of the art

…

## Model Driven Architecture (MDA)

### History

…

The MDA initiative has been created because, as it was existing many Meta models languages being developed independently such as UML, OCL, the fear of inconsistency and compatibility between different Meta models was growing. The need of synchronizing this was to develop a metamodel definition language: a meta-metamodel.

…

### What is MDA?

#### Definition

…

The diverse definitions according to the state of art

#### Methodology

…

Describing the MDA methodology step by step

### Example of application

…

Describing a concrete example where the MDA has been applied

…

### Drawbacks of MDA

…

…

## Behavior Driven Design (BDD)

### History

…

How did it come to create the BDD?

### What is BDD?

#### Definition

The diverse definitions according to the state of art

#### Methodology

Describing the MDA methodology step by step

### Example of application

Describing a concrete example where the MDA has been applied

### Drawbacks of BDD

## Domain Driven Design (DDD)

### History

### What is DDD?

#### Definition

#### Methodology

### Example of application

### Drawbacks of DDD

## 

# Research Methodology

## Qualitative analysis

### What is a qualitative analysis?

Describing in a nutshell what qualitative analysis stands for and what are its purposes.

How does it help in the global research methodology?

### Semi-structured Interviews and answers analysis

Describing how went the interviews? with who? Why their profile matter?

Describing the analysis of the transcripted answers.

## Quantitative analysis

### What is a quantitative analysis?

Describing in a nutshell what qualitative analysis stands for and what are its purposes.

How does it help in the global research methodology?

### Questionnaire and answers analysis

Describe, in a global manner, the content of the questionnaire.

What canals were used for the survey?

Describe the results: How many answers? From which profiles?

Describe the analysis process.

## Results and comments

Describe the results of the both analysis and comment them with respect to our research problem

# The guidelines

According to the results of the analysis, describe a concrete step by step methodology suggesting a solution to our research problem.

# Assessment and validation of results: case of AXA Bank DSI

Show how the guideline has been applied to a bank loan project at Axa bank and comment the resuls

# Conclusion and further work

# Table of acronyms

BDD: Behavior Driven Design

DDD: Domain Driven Design

ISD: Information System Department

MDA: Model Driven Architecture

TDD: Test Driven Design

UML: Unified Modeling Language

XMI: XML metadata interchange

# Bibliography:

# Appendices

## Semi-structures Interview Guide

## Questionnaire for the quantitative analysis