Politecnico di Milano

Software Engineering 2 Project

MeteoCal

Design Document

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Part I
Architecture description

1 JEE architecture overview

Before focusing on our application's architecture we want to briefly explain the JEE architecture.

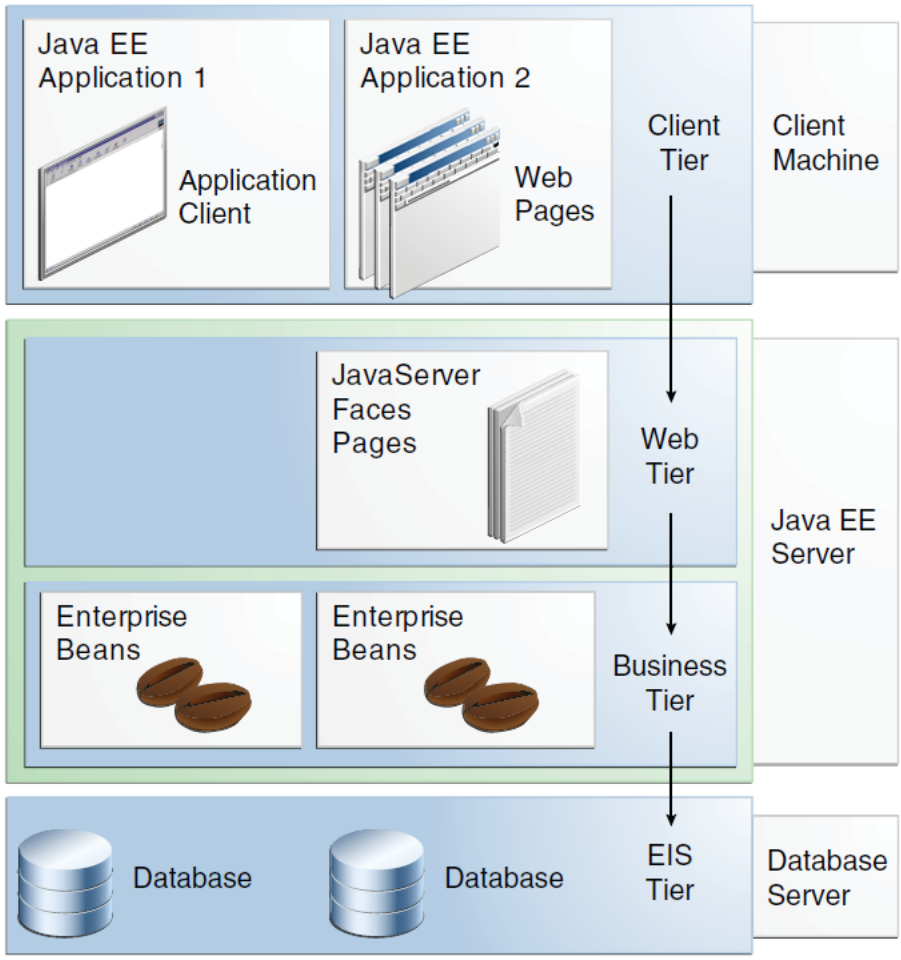

Figure 1: JEE achitecture

As shown in figure 1 JEE is divided in four tier:

- Client tier: containing Application Client and Web Pages it is the layer that directly interacts with the actors. As our project will be a web application the client will use a web browser to access pages.
- Web tier: it contains the dynamic web pages that needs to be elaborated. This tier receives the requests from the client tier and forwards the pieces

of data collected to the business tier waiting for processed data to be sent (eventually formatted) to the client tier.

- Business tier: it contains the Java Beans, which are the elements that control the business logic of the application.
- EIS tier: it contains the data source. In our case it is the database allowed to store all the relevant data and to retrieve them.

2 Identifying sub-systems

At this phase of the project we adopt a top-down approach to identify the main components of the system, once identified the sub-systems we will use a bottom-up approach to create more reusable components. We start by diving our system into smaller sub systems in order to better identify the various groups of functionalities and their interactions.

As depicted in figure 2 the system is divided into three main packages, each with his own sub systems:

- User interface:
  - Login page
  - Sign up page
  - Calendar page
  - Search page
  - Notification viewer
- Business logic:
  - Login manager
  - Sign up manager
  - Calendar manager
  - Search manager
  - Notification manager
  - Forecast manager
- Persistence:
  - Entity manager

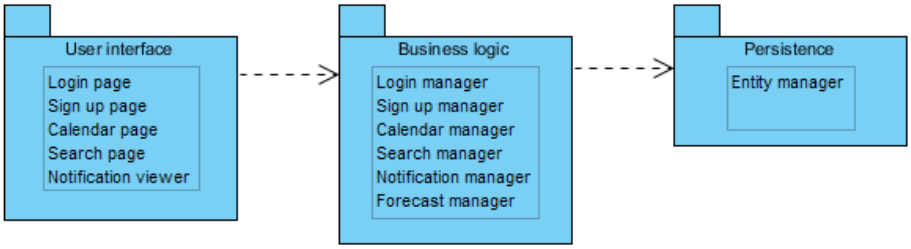

Figure 2: System's packages and main components

Part II
Persistent data management

3 Conceptual design

4 Logical design

4.1 ER restructuration

RESTRUCTURATION IN INGLESE NON ESISTE

4.2 Translation to logical model

Part III
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5 UX1

6 UX...n

Part IV
BCE diagrams

7 Entity overview

8 BCE 1

9 BCE...n

10 User

10.1 BCE u1

10.2 BCE u...n

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Sequence diagrams

11 SD1

12 SD..n

Part VI
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