TU Vienna

Software Architecture

SWAG - Assignment 1

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1   Use Cases

Use Case	Create User Account
Goal in Context	User can create a account

Use Case	Delete User Account
Goal in Context	User can delete his account

Use Case	Send Ingame Message
Goal in Context	User can send ingame messages to other users

Use Case	Receive Ingame Message
Goal in Context	User can receive ingame messages from other users

Use Case	Create Map
Goal in Context	User can create a map to play on

Use Case	Build Base
Goal in Context	User can build base on a map

Use Case	Build Building
Goal in Context	User can build building on a base

Use Case	Upgrade Building
Goal in Context	User can upgrade his existing buildings

Use Case	Build Troops
Goal in Context	User can build troops

Use Case	Move Troops
Goal in Context	User can move his troops

2 Issues and Decisions

Issue	Message order and reliability of delivery is of upmost importance, lots of messages estimated.
Decision	Establish a Message Queue
Status	Proposal
Constraints	None
Related Principles	Use proven technologies
Related Artifacts	MessagingSystem

Issue	Users shall not cheat
Decision	GameLogic is established completely on server side, and all game-related actions must pass the GameLogic thus no intervention of the user that would violate the game rules is possible.
Status	Proposal
Constraints	None
Related Principles	Use proven technologies
Related Artifacts	GameLogic

| Issue	Users access system from different time zones, but timebase must be common/persistent
Decision	Servertime is established and presented through the UI to the user, the servertime is the only relevant for the game logic and thus all game-based decisions/rulings.
Status	Proposal
Constraints	None
Related Principles	Use proven technologies
Related Artifacts	GameLogic, UI

3 Component Diagram
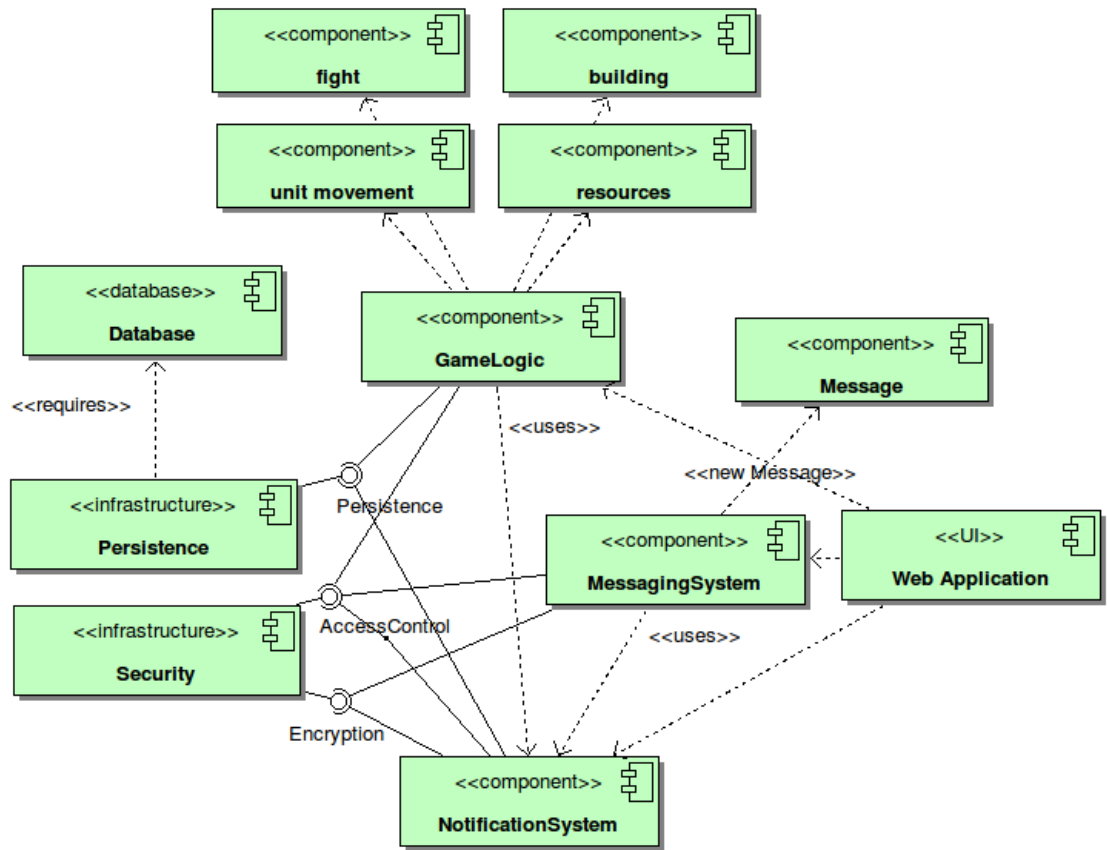
Figure 1: Component Diagram
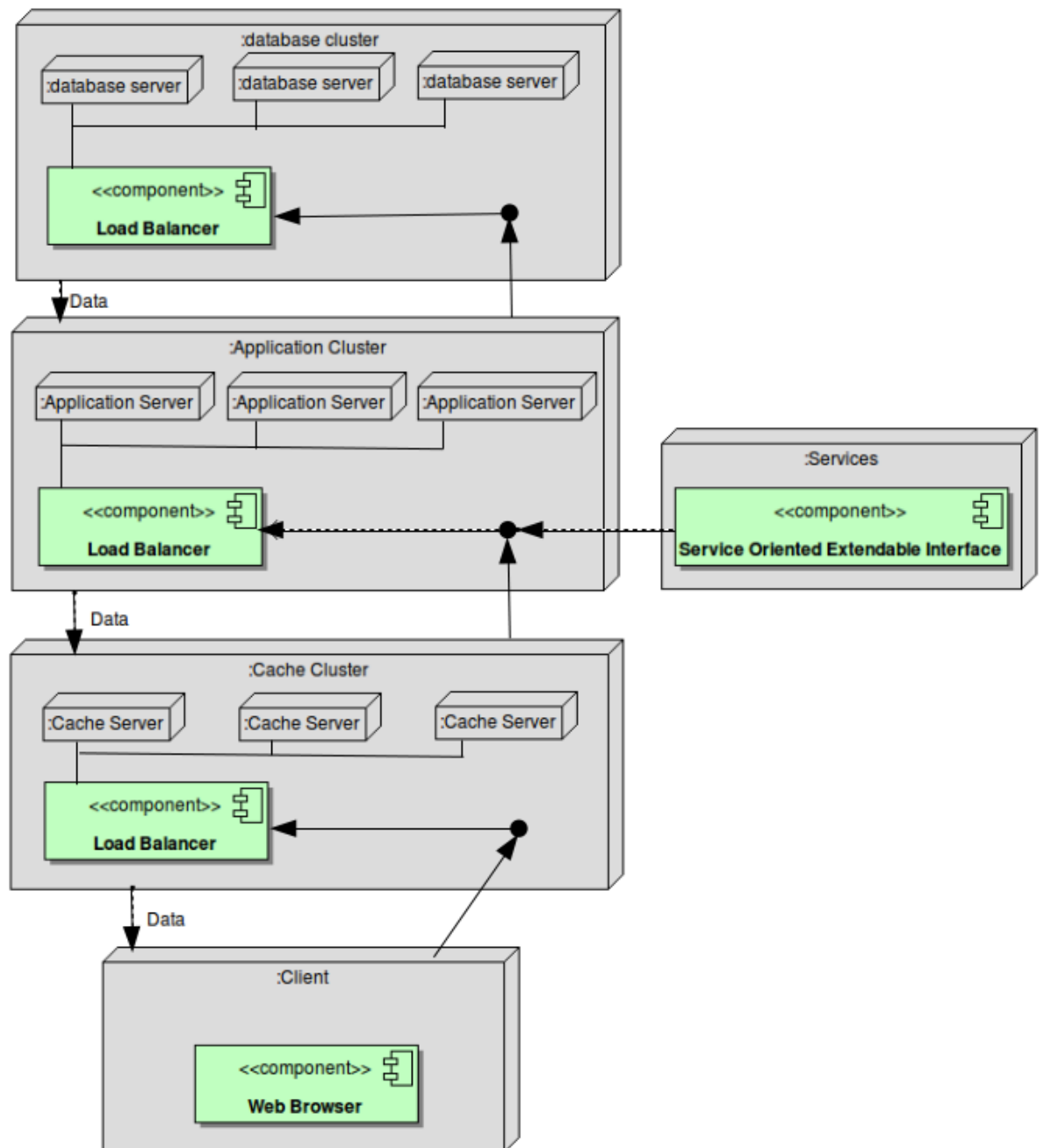
4   Deployment Diagram
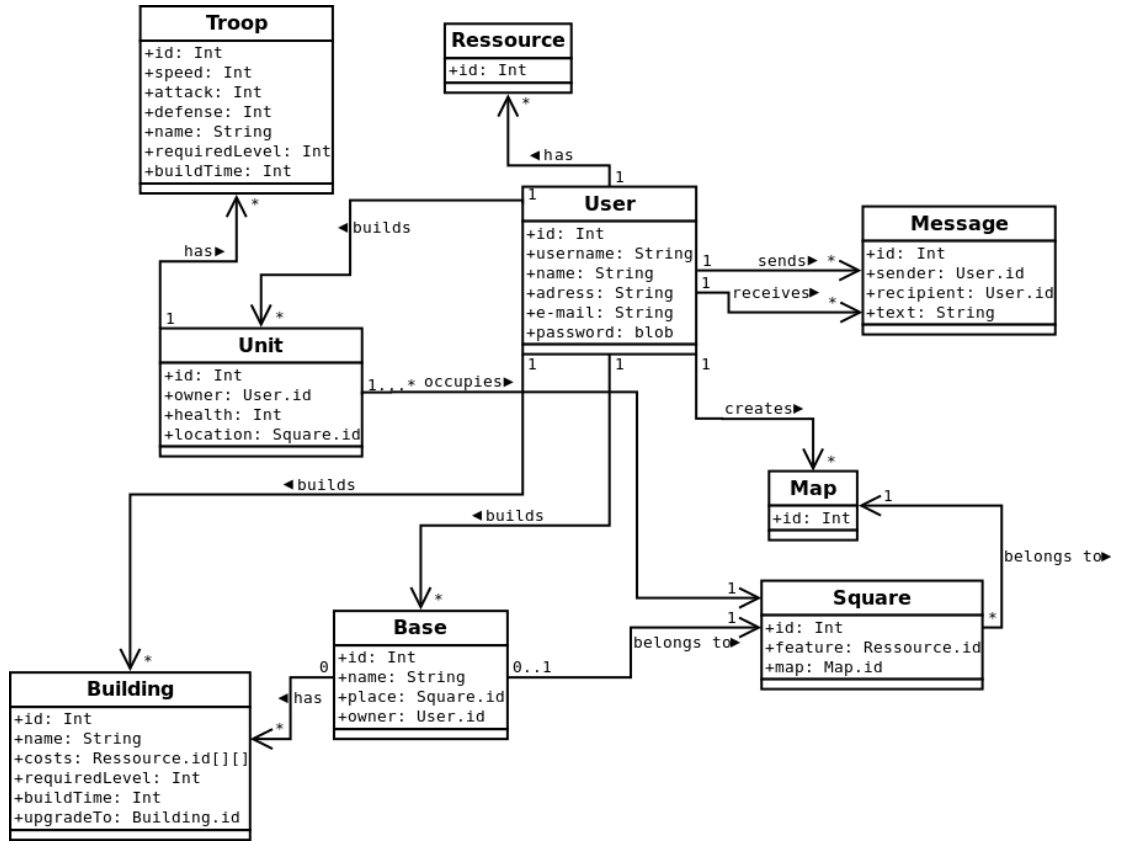
Figure 2: Deployment Diagram

5 Database Model

Figure 3: Database Model