OC Pizza

Order management application

Technical Design file

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1 - VERSIONS

Author	Date	Description	Version
Spencer Forrest	11/06/2019	Document creation	1.0

2 - INTRODUCTION

2.1 - Document purpose

The present document makes up the technical conception folder which represents the technical solution used to implement the application. It will present the functional domain, the physical organization and the external web services which constitute the system.

3 - TECHNICAL ARCHITECTURE

3.1 - General components

3.1.1 - Description

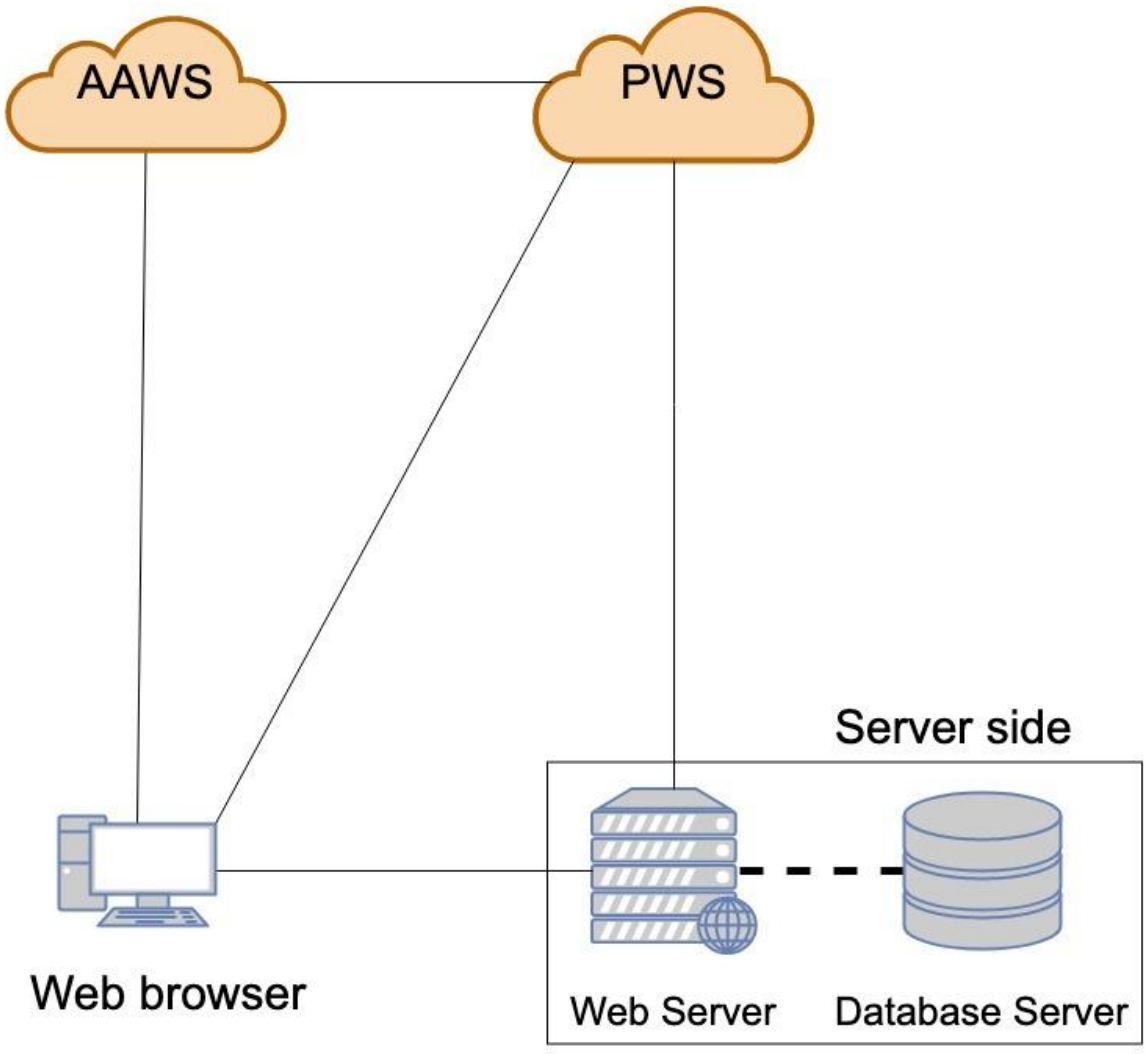
There will be three web services (see deployment diagram on next page):

- Address autocomplete ("**Place Autocomplete service**" from google)
- Payment web service ("**Stripe**")

All web services are REST APIs using JSON in order to communicate with mobile applications since their frameworks facilitate the use of JSON.

This architecture will use **MySQL** for the database and **Ruby on Rails** to implement the web application. The application will be deployed using the managed hosting service **Heroku**.

3.1.2 - Deployment diagram

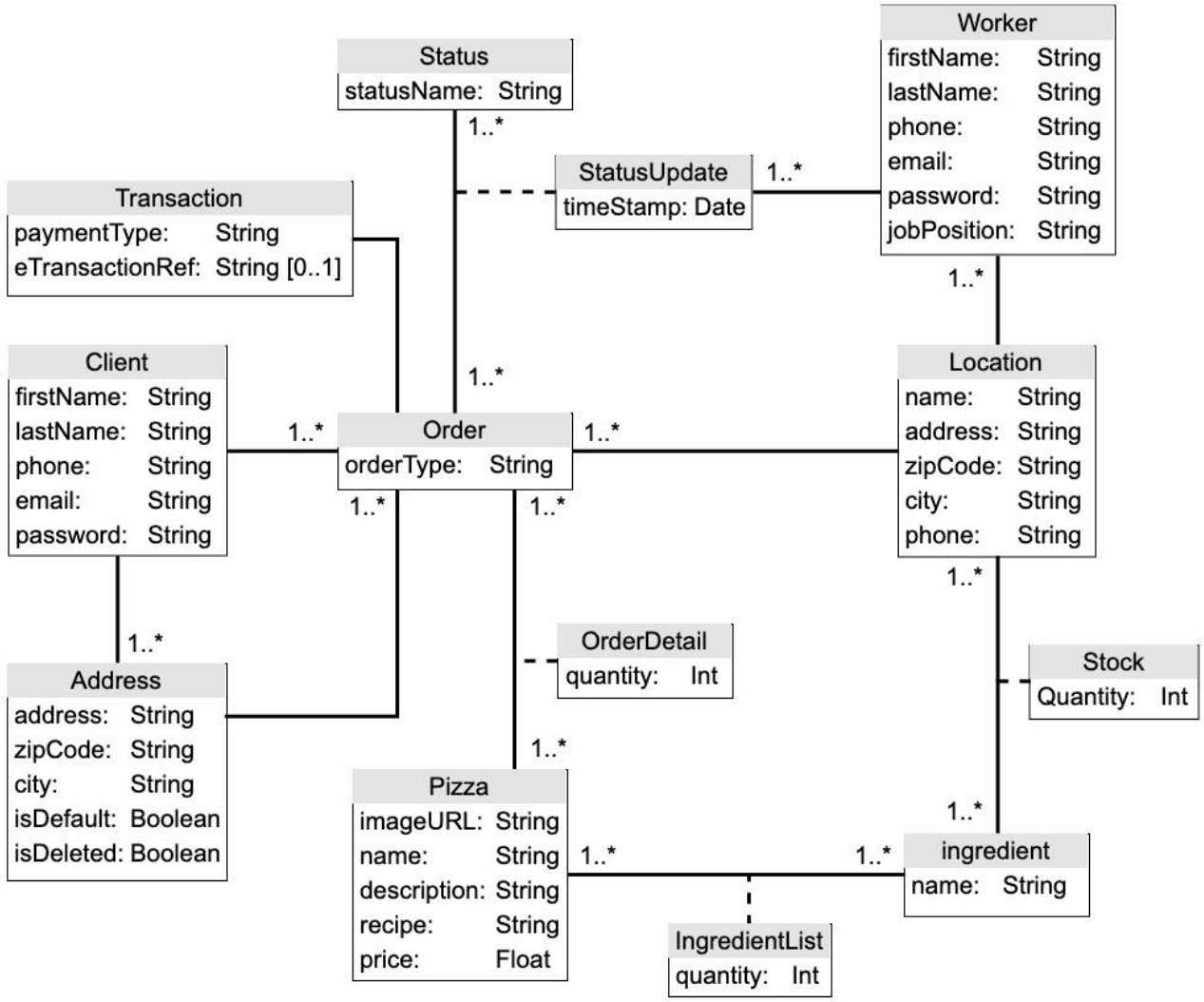


———	*Internet connection using HTTPS*
- - - -	*Local connection*
PWS	*Payment Web Service*
AAWS	*Address Autocomplete Web Service*

4 - DATA ARCHITECTURE

4.1 - Functional Domain

4.1.1 - Class diagram

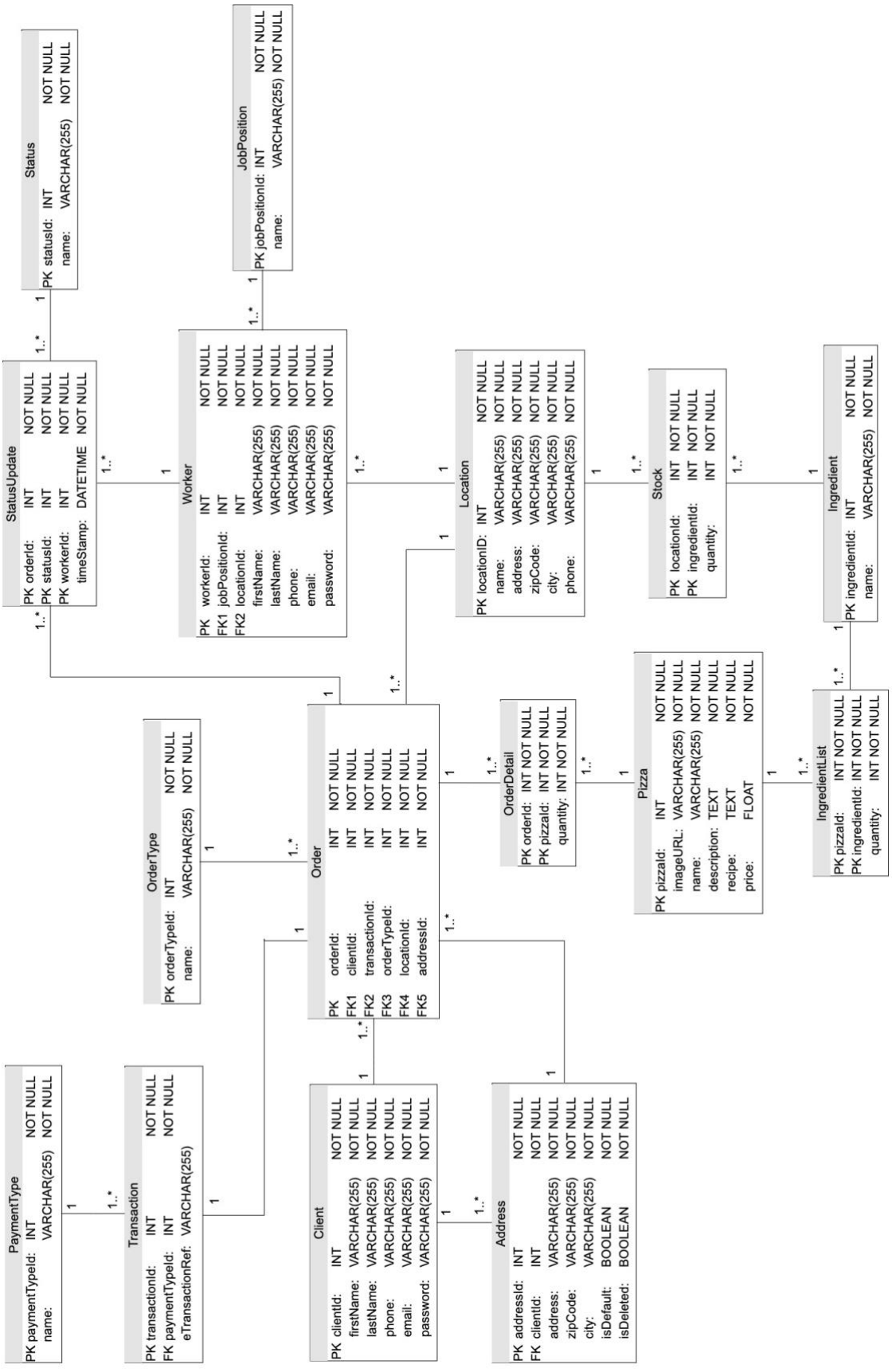


4.1.2 - Description

- The “Pizza” class represents a type of pizza (e.g hawaiian, pepperoni).
- The “Ingredient” class represents a type of ingredient (e.g tomato, olive).
- The “eTransactionRef” attribute in the “Transaction” class is a reference to an online transaction. It can be null since a transaction can be done online or upon delivery.
- The “StatusUpdate” class keeps track of which workers changed the status of an order and when they did it.
- The “Transaction” class captures how a user paid its order (e.g. online, cash). There can only be one transaction by order and one order by transaction.

The **P**hysical **D**ata **M**odel (Annex 1), created from the class diagram, is the actual design blueprint of the relational database.

ANNEX 1


Status
PK statusId: INT NOT NULL
name: VARCHAR(255) NOT NULL
JobPosition
PK jobPositionId: INT NOT NULL
name: VARCHAR(255) NOT NULL
StatusUpdate
PK orderId: INT NOT NULL
PK statusId: INT NOT NULL
PK workerId: INT NOT NULL
timeStamp: DATETIME NOT NULL
Worker
PK workerId: INT NOT NULL
FK1 jobPositionId: INT NOT NULL
FK2 locationId: INT NOT NULL
firstName: VARCHAR(255) NOT NULL
lastName: VARCHAR(255) NOT NULL
phone: VARCHAR(255) NOT NULL
email: VARCHAR(255) NOT NULL
password: VARCHAR(255) NOT NULL
Location
PK locationID: INT NOT NULL
name: VARCHAR(255) NOT NULL
address: VARCHAR(255) NOT NULL
zipCode: VARCHAR(255) NOT NULL
city: VARCHAR(255) NOT NULL
phone: VARCHAR(255) NOT NULL
Stock
PK locationId: INT NOT NULL
PK ingredientId: INT NOT NULL
quantity: INT NOT NULL
Ingredient
PK ingredientId: INT NOT NULL
name: VARCHAR(255) NOT NULL
OrderType
PK orderTypeId: INT NOT NULL
name: VARCHAR(255) NOT NULL
Order
PK orderId: INT NOT NULL
FK1 clientId: INT NOT NULL
FK2 transactionId: INT NOT NULL
FK3 orderTypeId: INT NOT NULL
FK4 locationId: INT NOT NULL
FK5 addressId: INT NOT NULL
OrderDetail
PK orderId: INT NOT NULL
PK pizzaId: INT NOT NULL
quantity: INT NOT NULL
Pizza
PK pizzaId: INT NOT NULL
imageURL: VARCHAR(255) NOT NULL
name: VARCHAR(255) NOT NULL
description: TEXT NOT NULL
recipe: TEXT NOT NULL
price: FLOAT NOT NULL
IngredientList
PK pizzaId: INT NOT NULL
PK ingredientId: INT NOT NULL
quantity: INT NOT NULL
PaymentType
PK paymentTypeId: INT NOT NULL
name: VARCHAR(255) NOT NULL
Transaction
PK transactionId: INT NOT NULL
FK paymentTypeId: INT NOT NULL
eTransactionRef: VARCHAR(255)
Client
PK clientId: INT NOT NULL
firstName: VARCHAR(255) NOT NULL
lastName: VARCHAR(255) NOT NULL
phone: VARCHAR(255) NOT NULL
email: VARCHAR(255) NOT NULL
password: VARCHAR(255) NOT NULL
Address
PK addressId: INT NOT NULL
FK clientId: INT NOT NULL
address: VARCHAR(255) NOT NULL
zipCode: VARCHAR(255) NOT NULL
city: VARCHAR(255) NOT NULL
isDefault: BOOLEAN NOT NULL
isDeleted: BOOLEAN NOT NULL