|  | Design Document  **Online Casino djigitBET** |
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|  | by Radoslav Radev  ICT & Software Engineering semester 3  9/10/2022  ver. 1.2 |

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# Introduction

# General Information

The application's technical and architectural components are the primary emphasis of this Design paper (online Casino).

The document contains things such as:

* *User stories*
* *RESTful API design tables*

# Architectural Approach

Object-oriented design based on SOLID principles will establish a Backend as a Service application, fully separated from the front end

# Project Methodology

The Methodology used in this project is **Agile**.

*Agile methodology:*

*“a software development and project management method that is continuous, and aids teams in delivering value to clients more quickly and with fewer hassles”*

# Frameworks

Frameworks used in this project are as follows:

* ***Java & Spring Boot*** *- RestAPI*
* ***JPA - ORM***
* ***MySQL -*** *database*
* ***React & MUI*** *- front end*

Project is going to be continuously deployed using **CI Pipelines** and **Docker Compose**.

# Feature Prioritization

To understand which features are more important than others, a prioritization system is implemented/included.

*It goes as followed.*

* ***MUST – “Feature must be implemented. It has the highest priority.”***
* ***SHOULD – “Feature should be implemented if everything goes smoothly and by schedule. It has medium priority.”***
* ***COULD – “Feature could be implemented if there is time upon finishing the project. It has lowest priority.”***

# Quality Assurance

Quality of the project is going to be assured through test-driven development as follows:

* *Unit tests*
* *Integration tests*
* *End-to-end tests*

# User Stories

A user story is a comprehensive explanation of a software feature written from the viewpoint of the client or end user.

*User story I*

| Tittle | Priority | Estimate |
| --- | --- | --- |
| Register | **MUST** | sprint 2 |
| As a customer,  I want to Register at the website.  So that I can gamble. | | |
| Acceptance Criteria | | |
| Given provided information,  When the Register button, in the Registration component of the website, is pressed  The system:   * Creates an account * Redirects to the home page in case of success   No/Insufficient information entered:   * error message displaying which data is field incorrectly | | |

*User story II*

| Tittle | Priority | Estimate |
| --- | --- | --- |
| Log-In | **MUST** | sprin2 |
| As a customer,  I want to Log-In to the website  So that I can gamble. | | |
| Acceptance Criteria | | |
| Given provided information,  When the Log-In button, in the Login component of the website, is pressed  The system, depending on the type of the account:   * Logs in the user and redirects to the home page in case of success   No/Insufficient information entered:   * display and error message | | |

*User story III*

| Tittle | Priority | Estimate |
| --- | --- | --- |
| Profile update | **MUST** | sprint 4 |
| As a customer,  I want to update my Account information,  So that my information stays safe, secure, and up to date. | | |
| Acceptance Criteria | | |
| Given provided information,  When the Update button, in the Profile component of the website, is pressed  The system:   * Updates the information in case of success   Insufficient information entered:   * error message displaying which fields are incorrerct | | |

*User story IV*

| Tittle | Priority | Estimate |
| --- | --- | --- |
| Account deletion | **Should** | sprint 5 |
| As a customer,  I want to delete my account,  Because I do not need the services of the online casino anymore. | | |
| Acceptance Criteria | | |
| When the Delete my Account button, in the Profile component of the website, is pressed  The system:   * Deletes the account after a confirmation pop-up | | |

*User story V*

| Tittle | Priority | Estimate |
| --- | --- | --- |
| Add funds via a payment system | **Could** | sprint 6 |
| As a customer,  I want to add funds to my Account  So that I can gamble them on the slot-machine. | | |
| Acceptance Criteria | | |
| When the Amount is specified and confirmed by a button, in the Funds component the system redirects to a payment provider and confirms the transaction  The transaction failed:   * funds are not added to the account | | |

*User story VI*

| Tittle | Priority | Estimate |
| --- | --- | --- |
| Adding the course to the cart | **MUST** | sprint 4 |
| As a customer,  I want to try my luck on the slot-machine | | |
| Acceptance Criteria | | |
| When the spin button is pressed on the slots component of the website:  The algorithm decides on giving a prize to the customer,   * the amount betted by the user is substracted from thair account * if a prize is won the funds will be added to the customer`s account | | |

*User story VII*

| Tittle | Priority | Estimate |
| --- | --- | --- |
| Modify User Account | **MUST** | sprint 2 |
| As an Administrator,  I want to Update Delete and Review all aspects of a user`s account with a usefull search engine | | |
| Acceptance Criteria | | |
| When text is entered in the search box of the User\_anengment Componet, the system:   * Refines the presented data according to the search criteria   When the Edit button next to a user account is pressed in the User-Manengment Componet, the system:   * presents the user with a form in which he can modify the information and confirm it   When the Deletebutton next to a user account is pressed in the User-Manengment Componet, the system:   * the user can confirm the deletion of the account | | |

*User story VIII*

| Tittle | Priority | Estimate |
| --- | --- | --- |
| view Statistics | **MUST** | 4 |
| As an Administrator,  I want to view statistics on profit and winCoeficent by user bases, an overall win rate of the slot machine | | |
| Acceptance Criteria | | |
| The system presents the required statistic data with filter options in the Statistics component of the website | | |

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# Technical Architecture

# API URL tables

This section of the paper contains API tables per user story.

| URL | Resource | Operation | Description |
| --- | --- | --- | --- |
| /users/getall | User | GET | get a collectionof all users |
| /users/save | User | POST | add a new user account to the system |
| /users/$id | User | PUT | Update the contents of the account object |
| /users/$id | User | DELETE | Delete the selected account |