LETTERS AND NUMBERS

SOFTWARE REQUIREMENTS SPECIFICATION

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1. Introduction

This document prepared for Letters and Numbers game. It is a web application. This section will specify the purpose and scope content of it.

1.1 Purpose

The purpose of this document is giving detail about Letters and Numbers game. Document will contain detailed description of the requirements. Customers can give approval for this project by looking at this document.

1.2 Scope

'Letters and Numbers' is a web-based application which design to be fun. It can be download and played offline. Application will have two different game. Users can register and play the games. They will have total score at the end. Users will be able to see theirs high scores.

1.3 Definitions, Acronyms, and Abbreviations

ReCAPTCHA	Security service that protects websites from attacks. It distinguishes humans from machines
Customer	Anyone using website
User	Anyone who is register to website. Which plays the game, view the best scores
SRS	Software requirements specification
Guest	Anyone visiting website without register
Admin	Somebody who manages website. Which view the users, changes the games options
Javascript	An object-oriented computer programming language
HTML	HTML stands for Hyper Text Markup Language. HTML is the standard markup language for creating Web pages

1.4 References

Document Shared in Lectures

1.5 Overview

After this part we will explain our requirements. Also, we will show our case Diagrams.

In the first part of SRS we will give brief introduction. Then we explain our General Descriptions and after that we will explain our detailed description of the requirements. In the end we will show our Case Diagrams.

2. General Description

This section of the SRS describes the general factors that affect the product and its requirements.

2.1 Product Perspective

Haydibil.com is a similar web application with our website. It has seven games, different from them we will only have two games. Different from this site we will ask 5 number and 5 letter questions with turns. After 10 question we will show the user's score. Every question will have specific time similar to Haydibil.com. The main difference from Haydibil.com is our site will not be multiuser game. Similar to Haydibil.com we will build a web-based application by using JavaScript and HTML.

-Bir Kelime Bir İşlem is a similar mobile application with our website.

Similarly, our game will use same game logic. But different from this application every question will have specific time. Also, we will try to make questions more difficult. The difference between our project and Bir Kelime Bir İşlem is that we will build a web-based application.

2.2 General Constraints

Hardware and Software Constraints

- System shall need Windows 7 or greater versions of Windows.
- 1.5 GHz or faster processor
- 1 GB of RAM
- 10 GB of available hard disk space

2.3 Assumptions and Dependencies

We assume all the users have knowledge of computer at a basic level and they need to be online for download the game. Users must have an active e-mail address for sign up to our system.

3. Specific Requirements

3.1 Functional Requirements

For User:
- Welcome Page: When a new user or guest has entered to the website, he could not see games without log-in. When log-in has occurred, the welcome page will be redirected to "Home Page".
- Register: User must provide username, password, e-mail and enter reCAPTCHA correctly.
- Log-in: Registered user should be able to log-in to the website.
- Log-out: Users can logged-out. After that, page will be redirect to "Welcome Page".
- Home Page: The user can see its profile and can start the game.
- Profile Page: The user can see its previous results. He can edit his information like username.
- Game Page: Number game and letter game can be played orderly 10 times.
- Best Players Page: Top 10 players which have been reached the best scores will be showed in decreasing order. User can see their names and scores.
- Contact Us Page: Shows developers' contact information. Thus, they can make any suggestion.

For Administrator:
- Admin Page: This page will includes:
  - Users Page: The admin can see user list. He can remove any user if it is required.
  - Manage Game Options: The admin can change time limits of per game and game numbers per round.

3.2 Non-Functional Requirements

3.2.1 Performance

Results of the games will be produced less than 15 seconds which is the average response time of the users.

3.2.2 Reliability

Games will find longest possible word and calculate the closest number to desired one. Games will calculate points earned from that question which is answered by the users.

3.2.3 Availability

The website can be downloaded as html page. Hence, the user can play games offline.

3.2.4 Security

The website can only be managed by admin. Admin can use administrator permissions with log-into website with administrator name and password.

Users will have a profile which shows their played games, earned scores and the highest scores of they reached. The profiles of the users can be accessed with log-in. Their profile will be protected with password they specified.

3.2.5 Maintainability

Algorithms of the games will be developed with using Javascript. This language supports developing mobile applications and desktop program. Thus, it provides platform independence.

New games can be added the website easily. Adding new games which increase their popularity and removing old games which decreases their popularity will be easy and it provides us a popular gaming website.

3.2.6 Portability

The website can be reached from any device which have an internet connection and run an internet browser.

4. Analysis Models

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USE CASE DIAGRAM
Oğuzhan BÖLÜKBAŞ | March 18, 2019
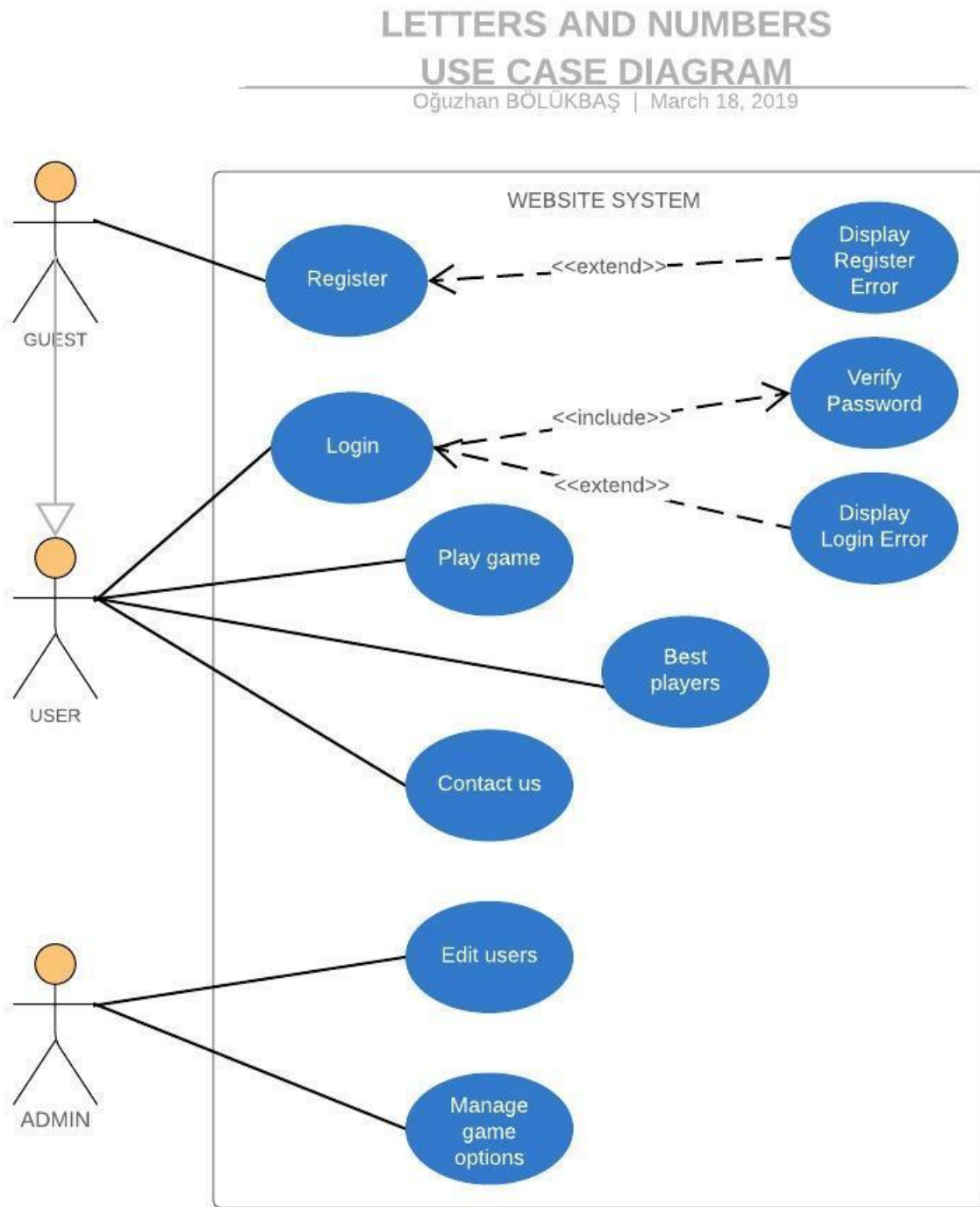
A. Appendices

Letters and Numbers is an Australian game show on SBS One. It is hosted by former newsreader Richard Morecroft, co-hosted by David Astle and Lily Serna. Although it is based on the French game show Des chiffres et des lettres, its structure is similar to the UK version of the show, Countdown - with the titular difference being used to avoid confusion with the Australian music program Countdown.

The series began airing on 2 August 2010. On 22 June 2012 SBS announced its decision to "rest" the show and the final episode aired on 27 June 2012.[1] Repeat episodes are still shown on SBS.

Gameplay

Two contestants compete against each other in a series of nine rounds, split into three sections. The first two sections consist of two letters rounds followed by a numbers round; the third section consists of a letter round, a numbers round, and the conundrum round. After the first commercial break, Astle would present a story on the origins of particular words and phrases.

The winner of the game returns in the next show to face a new opponent; a player who wins six times is forced to retire, becoming a retired champion, in which case two new contestants will play the next game. Retired champions with the highest cumulative score may return for a special tournament at the end of each series. Every contestant also wins a Macquarie Dictionary 5th Edition, signed by the presenters.

Letters round

One contestant chooses how many vowels and consonants they would like to make up nine randomly chosen letters. There must be at least three vowels and four consonants. The contestants then have thirty seconds to find the longest word that they can make out of these letters. Any word which appears in the Macquarie Dictionary is allowable, as well as some inflections. The contestant with the longest word is awarded one point for each letter in the word, but nine-letter words count double (thus scoring 18 points). If both contestants find words of equal length, then each is awarded points. Proper nouns are not qualified during the Letters rounds.

Numbers round

One contestant chooses how many "small" and "large" numbers they would like to make up six randomly chosen numbers. Small numbers are between 1 and 10 inclusive, and large numbers are 25, 50, 75, or 100. All large numbers will be different, so at most four large numbers may be chosen. The contestants have to use arithmetic on some or all of those numbers to get as close as

possible to a randomly generated three-digit target number within the thirty-second-time limit. Fractions are not allowed—only integers may be used at any stage of the calculation.

For numbers selections, they are to be straightforward. The numbers are always placed in a fixed order (going Right to Left - Small numbers are placed first, then the large ones).

Points are awarded for the closest solution, and again both contestants score if the solutions are equally close. 10 points are given for an exact answer, 7 points for a non-exact solution up to 5 from the target, and 5 points for a solution between 6 and 10 from the target. If neither contestant can get within 10, no points are awarded. [1]

References

[1]   https://en.wikipedia.org/wiki/Letters_and_Numbers

Work-sharing Between Team Members

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