



SOFE 2720

Principles of Software and Requirements

Deliverable 1: User Stories and Test Plan

Members

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User Story Priorities Rating:

[8] → → → → → [1]
Most Important Least Important

Identification (ID) Legend:

A→ Main Menu Associated
B→ Game Associated
C→ Marketer Associated
D→ Developer Associated
E→ Manager Associated

User Story 1:

As a player I want to select difficulty so that I can have a different experiences with this game. [8]

- **Test Cases:**
 - Different difficulty settings must be displayed to the user at the main menu
 - Sudoku boards difficulty should match the difficulty the user chose
 - User's score must be stored in a database matching the correct difficulty

ID	A1
Description	Have different difficulty settings at main menu for the user to choose for a different gaming experience
Setup	<i>NO SETUP</i>
Instructions	<ol style="list-style-type: none">1. Select easy difficulty and load the game2. Quit the game3. Select medium difficulty and load the game4. Quit the game5. Select extreme difficulty and load the game6. Quit the game
Acceptance Test	<p>Easy difficulty chosen</p> <ul style="list-style-type: none">● A sudoku board will load with many of the numbers visible -- Acceptable● A sudoku board will load with some of the numbers visible --- Unacceptable● A sudoku board will load with little of the numbers visible -- Unacceptable <p>Medium difficulty chosen</p> <ul style="list-style-type: none">● A sudoku board will load with many of the numbers visible -- Unacceptable● A sudoku board will load with some of the numbers visible --- Acceptable● A sudoku board will load with little of the numbers visible -- Unacceptable <p>Extreme difficulty chosen</p>

	<ul style="list-style-type: none"> • A sudoku board will load with many of the numbers visible -- Unacceptable • A sudoku board will load with some of the numbers visible --- Unacceptable • A sudoku board will load with little of the numbers visible -- Acceptable
Expected Results	<ul style="list-style-type: none"> • A sudoku board will load with many of the numbers visible for easy difficulty • A sudoku board will load with some of the numbers visible for easy difficulty • A sudoku board will load with little of the numbers visible for easy difficulty

User Story 2:

As a player I want to be able to view my score so that I can see my performance. [8]

- **Test Case:**
 - Ensure a number based on the player's performance and time is visible on the game screen

ID	B1
Description	Display the player's score count.
Setup	<ol style="list-style-type: none"> 1. Start score at 0 at start of game 2. Start the game 3. Timer starts from 0:00 4. Maximum score point 10000 5. Set amount of points are removed for set period of time
Instructions	<ol style="list-style-type: none"> 1. Complete the board
Acceptance Test	<ul style="list-style-type: none"> • The score is not calculated properly -- Unacceptable • The score does not show up on the board -- Unacceptable • Displayed score on the scoreboard appropriately to the score count -- Acceptable
Expected Results	<ul style="list-style-type: none"> • Displayed score on the scoreboard appropriately to the score count

User Story 3:

As a player I want to view highscores so that I can judge my own score with my previous sessions. [6]

- **Test Cases:**
 - Ensure different databases store scores from different difficulty sets
 - Have different high score databases for different difficulties
 - Organize the user's score data from the respective database in descending order

ID	B2
Description	Players have the option of playing at different difficulties. Their score should be stored in separate databases based on their selected difficulty
Setup	<ol style="list-style-type: none"> 1. Start a game of sudoku on easy 2. Start a game of sudoku on medium 3. Start a game of sudoku on extreme
Instructions	<ol style="list-style-type: none"> 1. Complete the sudoku easy board 2. Complete the sudoku easy board again 3. Complete the sudoku medium board 4. Complete the sudoku medium board again 5. Complete the sudoku extreme board 6. Complete the sudoku extreme board
Acceptance Test	<p>Easy difficulty chosen</p> <ul style="list-style-type: none"> • The score is saved in the easy difficulty database -- Acceptable • The score is saved in the medium difficulty database -- Unacceptable • The score is saved in the extreme difficulty database -- Unacceptable <p>Medium difficulty chosen</p> <ul style="list-style-type: none"> • The score is saved in the easy difficulty database -- Unacceptable • The score is saved in the medium difficulty database -- Acceptable • The score is saved in the extreme difficulty database -- Unacceptable <p>Extreme difficulty chosen</p> <ul style="list-style-type: none"> • The score is saved in the easy difficulty database -- Unacceptable • The score is saved in the medium difficulty database -- Unacceptable • The score is saved in the extreme difficulty database -- Acceptable
Expected Results	<ul style="list-style-type: none"> • The score for easy sudoku board completion should be stored in the easy sudoku board database • The score for medium sudoku board completion should be stored in the medium sudoku board database • The score for extreme sudoku board completion should be stored in the extreme sudoku board database • The database should have the scores sorted from greatest to least • The scores should be displayed on their own separate screen

User Story 4:

As a player I want to preview my selected board layout so that I understand what kind of difficulty I am choosing. [5]

- **Test Case:**

- Have different layout pictures that cater to the different difficulties

ID	A2
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Description	Players can preview the difficulty they have chosen by looking at a board layout provided for each level.
Setup	<ol style="list-style-type: none"> 1. User chooses a difficulty level 2. Preview that layout before user starts the game
Instructions	<ol style="list-style-type: none"> 1. Choose difficulty level (easy mode) 2. Choose difficulty level (medium mode) 3. Choose difficulty level (hard mode)
Acceptance Test	<ul style="list-style-type: none"> • The display is not visible -- Unacceptable <p>Easy difficulty chosen</p> <ul style="list-style-type: none"> • The board displayed has the same number of numbers visible as the easy sudoku board -- Acceptable • The board displayed has the same number of numbers visible as the medium sudoku board -- Unacceptable • The board displayed has the same number of numbers visible as the extreme sudoku board -- Unacceptable <p>Medium difficulty chosen</p> <ul style="list-style-type: none"> • The board displayed has the same number of numbers visible as the easy sudoku board -- Unacceptable • The board displayed has the same number of numbers visible as the medium sudoku board -- Acceptable • The board displayed has the same number of numbers visible as the extreme sudoku board -- Unacceptable <p>Extreme difficulty chosen</p> <ul style="list-style-type: none"> • The board displayed has the same number of numbers visible as the easy sudoku board -- Unacceptable • The board displayed has the same number of numbers visible as the medium sudoku board -- Unacceptable • The board displayed has the same number of numbers visible as the extreme sudoku board -- Acceptable
Expected Results	<ul style="list-style-type: none"> • A sample layout picture of easy mode is stored in a folder • A sample layout picture of medium mode is stored in a folder • A sample layout picture of hard mode is stored in a folder • Once a player selects a mode, they must be able to preview it before they start the game

User Story 5:

As a player I want a method of reporting bugs found in this game so they can be fixed and I can have a more-enjoyable gaming experience. [4]

- **Test Cases:**

- Reports submitted by the user must be emailed to the developers
- The user is given only 10 reports to avoid spam messages

ID	A3
Description	If the player runs into any issues in the game, they should have an easy way of contacting the developers
Setup	1. Click the submit bug button
Instructions	1. State the game's menu is bugged and will not load the sudoku board selected
Acceptance Test	<p>A form is displayed for the user to fill out</p> <ul style="list-style-type: none"> ● The content of the filled out form is not sent -- Unacceptable ● The content of the form is not received by the developers -- Unacceptable ● The contents of the form is sent and received by the developers -- Acceptable <p>The form is not displayed -- Unacceptable</p>
Expected Results	<ul style="list-style-type: none"> ● Confirmation of submission should be shown to the user ● An email should be sent to the developing team and received

User Story 6:

As a player I want to be able to view the rules of the game so that I better understand how to play. [8]

- **Test Cases:**

- A "How to play?" button should be provided as a component of the main menu.
- Form must be included with the rules for the game

ID	A4
Description	Able to view the rules of the game
Setup	<i>NO SETUP</i>
Instructions	1. Click on "How to Play" (Rule page)
Acceptance Test	<ul style="list-style-type: none"> ● Page does not have all the rules -- Unacceptable ● Page does not load -- Unacceptable ● A rule page with all the rule on how to play sudoku -- Acceptable
Expected Results	<ul style="list-style-type: none"> ● A rule page with all the rule on how to play sudoku

User Story 7: As a player I want be able to choose different themes so that I can accustom the aesthetics to my liking. [4]

- **Test Case:**
 - Several folders containing different pictures should correlate with the selected theme

ID	A5
Description	Able to choose different themes
Setup	<i>NO SETUP</i>
Instructions	<ol style="list-style-type: none">1. Click on “Theme”2. Select wanted Theme
Acceptance Test	<ul style="list-style-type: none">● The theme is selected but does not apply to the board -- Unacceptable● Not all themes show up -- Unacceptable● Unable to select the theme -- Unacceptable● Board layout and the background color changes according to the theme selected -- Acceptable
Expected Results	<ul style="list-style-type: none">● Board layout and the background color changes according to the theme selected

User Story 8:

As a player I want a timer so that I have an extra challenge [7]

- **Test Cases:**
 - A timer must be implemented to start at 0 once the board is loaded
 - Timer must stop once the user has finished the board or has chosen to quit

ID	B3
Description	Display a timer starting from 0 counting the number of seconds taken on the level.
Setup	<ol style="list-style-type: none">1. Set the timer to 0:00
Instructions	<ol style="list-style-type: none">1. Start a game of sudoku2. Quit the game3. Start a new game of sudoku
Acceptance Test	Timer is not displayed -- Unacceptable Timer is displayed <ul style="list-style-type: none">● Timer starts at 0 and counts seconds<ul style="list-style-type: none">○ Timer increases -- Acceptable

	<ul style="list-style-type: none"> ○ Timer decreases -- Unacceptable ● Timer does not count seconds -- Unacceptable ● Timer does not start at 0 -- Unacceptable
Expected Results	<ul style="list-style-type: none"> ● As the game starts, the timer should be visible to the user and should start counting each second from 0 ● Once the game is quit the timer should stop and be used for scoring ● As the next game starts, the timer should once again start from 0 and count each second upwards

User Story 9:

As a player I want a victory celebration so that I feel satisfactory after a win. [3]

- **Test Cases:**

- Submitted board by the user must be checked for accuracy with the solution board
- A statement must be displayed as a confirmation that the player has won the game.

ID	B4
Description	Display a message if the player completes the board successfully
Setup	<i>NO SETUP</i>
Instructions	<ol style="list-style-type: none"> 1. Start the game 2. Complete and submit the game
Acceptance Test	<ul style="list-style-type: none"> ● A prompt appears on the screen stating “You Win”-- Acceptable ● No message appears -- Unacceptable ● A prompt appears on the screen stating “You Lose” -- Unacceptable
Expected Results	<ul style="list-style-type: none"> ● A prompt will appear on the screen confirming the win

User Story 10:

As a player I want a prompt to say “you lose” so that I feel outraged and enticed to try again. [2]

- **Test Cases:**

- Submitted board by the user must be checked for accuracy with the solution board
- A statement must be displayed as a confirmation that the player has lost the game.

ID	B5
Description	Display a taunting message if the user forcibly quits the game

Setup	<i>NO SETUP</i>
Instructions	<ol style="list-style-type: none"> 1. Start a sudoku game on any difficulty 2. Quit out of the sudoku game
Acceptance Test	<ul style="list-style-type: none"> • A prompt appears on the screen stating “You Win” -- Unacceptable • No message appears- - Unacceptable • A prompt appears on the screen stating “You Lose” -- Acceptable
Expected Results	<ul style="list-style-type: none"> • A prompt appears on the screen stating “You Lose”

User Story 11:

As a player I want a motivational sudoku quote while playing so I can gain inspiration while playing [1]

- **Test Case:**
 - A statement must be displayed on the Sudoku board while the game is running.

ID	B6
Description	Motivational sudoku quote
Setup	<ol style="list-style-type: none"> 1. Select a quote to have in the game
Instructions	<ol style="list-style-type: none"> 1. Start the game in any difficulty
Acceptance Test	Player starts a game <ul style="list-style-type: none"> • A motivational quote is displayed on the top of the screen -- Acceptable • There is no quote on the top of the page -- Unacceptable
Expected Results	<ul style="list-style-type: none"> • The quote shows up at the bottom of the page without overlapping the board

User Story 12:

As a player i want background music so I can remain gripped throughout the game. [5]

- **Test Case:**
 - Music is provided to the user during their game-session

ID	B7
Description	Music should play when a sudoku game is started regardless of difficulty
Setup	<ol style="list-style-type: none"> 1. Turn volume on computer machine up
Instructions	<ol style="list-style-type: none"> 1. Start a game of sudoku
Acceptance Test	Player opens the Sudoku application

	<ul style="list-style-type: none"> ● Background music plays as soon as the game opens -- Acceptable ● No background music is played when the game is running -- Unacceptable
Expected Results	<ul style="list-style-type: none"> ● Once the game begins, music should start playing at an audible level

User Story 13:

As a player i want a hint option to reveal a number on the board so I can tackle another portion of the board. [6]

- **Test Case:**
 - The master board must be used to make a random number visible furthermore it's location that has not been filled by the user

ID	B8
Description	Hint option
Setup	1. Have a master board ready for the game board the player is playing
Instructions	<ol style="list-style-type: none"> 1. Start a Sudoku game 2. Click on the hint button
Acceptance Test	<ul style="list-style-type: none"> ● Hint button does not work -- Unacceptable ● It fills one of the boxes that is correct -- Unacceptable ● Fills in a wrong value for a box -- Unacceptable ● Have the code run through the board used by the user while checking with the master board. -- Acceptable ● Fill out one random empty box or a box that is entered in wrong -- Acceptable
Expected Results	<ul style="list-style-type: none"> ● Have the code run through the board used by the user while checking with the master board. ● Fill out one random empty box or a box that is entered in wrong

User Story 14:

As a player i want to be able to pause the game so I can take a break and do something else and then comeback and continue. [8]

- **Test Case:**
 - The board must be disabled along with the timer

ID	B9
Description	Sudoku is a long game especially on higher difficulties. The game should be pausable, that way the user can take a break without worrying about their score being disrupted

Setup	<i>NO SETUP</i>
Instructions	<ol style="list-style-type: none"> 1. User starts the game 2. User selects the pause option 3. User selects the pause option again
Acceptance Test	<p>A player wishes to pause the game and clicks pause button</p> <ul style="list-style-type: none"> • The timer stops and the board disables- Acceptable • The timer stops but the board does not disable itself -- Unacceptable • The board disables but the timer does not stop -- Unacceptable • Neither the timer stops or the board disable. -- Unacceptable <p>Player clicks the continue button to resume the game</p> <ul style="list-style-type: none"> • The timer continues and the board gets enabled -- Acceptable • The timer continues but the board does not get enabled -- Unacceptable • The board gets enabled but the timer does not resume -- Unacceptable • Neither the timer resumes or the board gets enabled -- Unacceptable.
Expected Results	<p>Once pause button is clicked</p> <ul style="list-style-type: none"> • The gameboard begins disabled • The timer is frozen • The game board is invisible <p>Once pause button is clicked again</p> <ul style="list-style-type: none"> • The gameboard is enabled and visible • The timer continues counting seconds upward from where the number was frozen

User Story 15:

As a developer i want create the domain with an easy to follow UI that advertises which explains and allows the download of our game for an excellent UX.[8]

- Test Plan
 - Developer must create a domain that is easy to follow and serves as many mobile operating systems as possible

ID	D1
Description	To make sure the application is reachable from several platforms, the developers need to create an interface that is not difficult and is accessible from many operating systems. To ensure there is consistency throughout the game's UI
Setup	<ol style="list-style-type: none"> 1. Create a clear and straightforward domain
Instructions	<ol style="list-style-type: none"> 1. The user opens the game 2. The user navigates to each section of the sudoku game
Acceptance Test	<ul style="list-style-type: none"> • The game does not download on IOS -- Unacceptable • The game does not download on Android -- Unacceptable

	<ul style="list-style-type: none"> ● The game does not download on Windows -- Unacceptable ● The application is not easy to navigate -- Unacceptable ● The game downloads properly for all platforms and runs smoothly throughout --Acceptable ● Game's interface is choppy and inconsistent -- Unacceptable ● Game's interface is very fluid and displays the correlation between each screen -- Acceptable
Expected Results	<ul style="list-style-type: none"> ● The developers program an engaging user interface that keeps the player interested in the game ● The application is accessible from several popular operating devices

User Story 16:

As a marketer I want to display the uniqueness of our sudoku game compared to other pre-existing games to further generate interest and sales for our sudoku software. [8]

- **Test Case:**
 - Promote the sudoku game digitally throughout social media platforms like Facebook, Instagram, etc..
 - Sponsor a few popular gaming youtube channels such as Pewdiepie to promote the game

ID	C1
Description	Promote the game to the media to generate excitement and anticipation
Setup	1. Create posters and ads that show gameplay
Instructions	<ol style="list-style-type: none"> 1. Reach out to popular youtube gaming channels about a sponsorship if they promote the game and show gameplay 2. Send information about the game across social media platforms like facebook and instagram
Acceptance Test	<ul style="list-style-type: none"> ● Youtuber agrees to take sponsorship but does not promote the game -- Unacceptable ● Youtuber agrees to take sponsorship and promotes the game -- Acceptable ● Youtuber does not agree to take sponsorship and promote the game -- Acceptable ● Sudoku post is posted on popular threads on facebook, instagram and other social medias successfully -- Acceptable ● Sudoku post deleted from the popular threads on facebook, instagram and

	other social medias successfully -- Unacceptable
Expected Results	<ul style="list-style-type: none"> • The youtube promotes the game and shows some gameplay on their video • The poster is visible to social media users and generates a buzz of excitement

User Story 17:

As a manager I must ensure the marketers are presenting accurate information about the product to the media so our game is not falsely-advertised. [6]

- **Test Case:**
 - Do the advertisements and gameplay show the main purpose for the sudoku game along with the different attributes implemented in our design

ID	E1
Description	Make sure the marketing team promotes the important features of our sudoku game primarily the uniqueness
Setup	1. Receive the advertisements and gameplay prior to their release
Instructions	<ol style="list-style-type: none"> 1. Analyze the advertisements for social media 2. Watch the gameplay at least ten times
Acceptance Test	<ul style="list-style-type: none"> • The manager feels enthusiastic and ecstatic about the sudoku game after watching the gameplay at least ten times -- Acceptable • The manager feels enthusiastic and ecstatic about the sudoku game after watching the gameplay nine times -- Unacceptable • The social media advertisements shows the core aspects of the sudoku game along with the unique features implemented in this version --Acceptable • The social media advertisements shows the core aspects of the sudoku game but none of the unique features implemented in this version --Unacceptable • The social media advertisements shows the core aspects for a game of chess --Unacceptable
Expected Results	<ul style="list-style-type: none"> • After careful analysis, the manager agrees to send out the advertisements on social media • After watching gameplay of our sudoku game at least ten times, the manager is in awe and agrees to use that gameplay footage • The youtuber chosen is a gaming youtuber and is respectable by the community not only as a content-creator but as a human being as well