



**CSC 431**

**CharacterSmith3.5e**

## Software Requirements Specification (SRS)

**Team #12**

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# Version History

Version	Date	Author(s)	Change Comments
1.0	2/20/22	Alex Madarese Nathan Fitzpatrick Jefferson Boyd	First Draft

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# 1. System Requirements

## 1.1 Functional Requirements

### 1.1.1 Open Character Creation Menu

Title	Open Character Creation Menu
Description	The character creation menu is where all character choices will be made
Priority	Mandatory: 0
Precondition(s)	User must have chosen to begin character creation
Basic Flow	<ul style="list-style-type: none"><li>• User will be brought to menu in which all character details can be decided</li><li>• At end will be option to view final character sheet</li></ul>
Postconditions(s)	User is in character creation menu

### 1.1.2 Pick Character Class

Title	Pick Character Class
Description	Users are prompted with a list of class choices
Priority	Mandatory: 0
Precondition(s)	User must be in the Character Creation Menu
Basic Flow	<ul style="list-style-type: none"><li>• User opens application</li><li>• User chooses create a custom character</li><li>• User is prompted with selectable classes</li><li>• User chooses a desired class to continue their character creation</li><li>• The randomize feature is also present</li></ul>
Postconditions(s)	Trait is saved to character

### 1.1.3 Pick Character Level

Title	Pick Character Level
Description	Users are prompted to choose a level of their custom character
Priority	Mandatory: 0
Precondition(s)	User must be in the Character Creation Menu
Basic Flow	<ul style="list-style-type: none"><li>• User is prompted with a level selector decision</li><li>• User selects the desired level of their character to continue their character creation</li><li>• The randomize feature is also present</li></ul>
Postconditions(s)	Trait is saved to character



### 1.1.4 Choose Attribute

Title	Choose attribute
Description	Users are prompted to choose attributes for their custom character
Priority	Mandatory: 0
Precondition(s)	User must be in the Character Creation Menu, User has selected character level and class
Basic Flow	<ul style="list-style-type: none"><li>• User is prompted with selectable attributes</li><li>• User selects the desired attribute for their character to continue their character creation</li></ul>
Postconditions(s)	Trait is saved to character

### 1.1.5 Randomize Attribute

Title	Randomize Attribute
Description	User selects the "randomize attribute button" to have the program choose a random option for a selected attribute
Priority	Very Important: 1
Precondition(s)	User must be in the Character Creation Menu, User has selected character level and class
Basic Flow	<ul style="list-style-type: none"><li>• User selects the "randomize attribute button"</li><li>• A random option from a list of valid attributes is chosen by the program</li><li>• The randomly chosen option is returned to the user</li></ul>
Postconditions(s)	Trait is saved to character

### 1.1.6 Skill Leveler

Title	Skill Leveler
Description	Takes user through process of leveling up skills
Priority	Very Important: 1
Precondition(s)	User must be in character creation menu, User has selected character level and class, User has selected attributes
Basic Flow	<ul style="list-style-type: none"><li>• User is shown list of skills</li><li>• User is told their skill points available</li><li>• User can allocate skill points to different skills</li><li>• Skills are saved to character</li></ul>
Postconditions(s)	Trait is saved to character

### 1.1.7 View Final Character

Title	View final Character
Description	Takes user to final gui where they can review the final details of their character

Priority	Mandatory: 0
Precondition(s)	User must be in the Character Creation Menu, User has selected character level and class
Basic Flow	<ul style="list-style-type: none"> <li>• User is in character creation menu</li> <li>• User selects "View final character"</li> <li>• A character sheet for the character is shown on screen</li> <li>• Option to export character will be present on screen</li> </ul>
Postconditions(s)	Opens final character view

## 1.1.8 Export Final Character

Title	Export Final Character
Description	Gives the user the ability to export their fully created character.
Priority	Important: 2
Precondition(s)	User must be in character creation menu User has selected level and class
Basic Flow	<ul style="list-style-type: none"> <li>• User is in character creation menu</li> <li>• User selects "View final character"</li> <li>• A character sheet for the character is shown on screen</li> <li>• User selects "Export final character"</li> <li>• A character sheet for the character is printed into a file</li> </ul>
Postconditions(s)	Exports final character to file

## 1.2 Non-Functional Requirements

### 1.2.1 D&D Class Database

Title	D&D Class Database
Description	Need to store all class names, descriptions and traits
Priority	Mandatory: 0
Applicable FR(s)	1.1.2, 1.1.4, 1.1.5, 1.1.6

### 1.2.2 Race Database

Title	Race Database
Description	All available player race names, traits, and modifiers
Priority	Mandatory: 0
Applicable FR(s)	1.1.4, 1.1.5

### 1.2.3 Stat Generator

Title	Stat Generator
Description	Creates main stats for the character
Priority	Mandatory: 0
Applicable FR(s)	1.1.4, 1.1.5, 1.1.6

## 1.2.4 Skills Database

Title	Skills Database
Description	Names of all skills and applicable mainstats
Priority	Mandatory: 0
Applicable FR(s)	1.1.6

## 1.2.5 Prerequisite Checker

Title	Prerequisite Checker
Description	Makes sure that a selected trait or attribute meets the required prerequisites
Priority	Mandatory: 0
Applicable FR(s)	1.1.2, 1.1.3, 1.1.4, 1.1.5, 1.1.6

## 1.2.6 Character Information storage

Title	Character Information Storage
Description	Saves all information about selected traits for the character
Priority	Mandatory: 0
Applicable FR(s)	1.1.2, 1.1.3, 1.1.4, 1.1.5, 1.1.6, 1.1.7, 1.1.8

## 2. System Constraints

### 2.1 Tool Constraints

#### 2.1.1 User Interface

Title	User Interface
Description	Need to code series of GUI menus using Swing for java
Priority	Mandatory: 0

### 2.2 Language Constraints

#### 2.2.1 Java

Title	Java
Description	The java programming language will be used to code the application in its entirety
Priority	Mandatory: 0

### 2.3 Platform Constraints

#### 2.3.1 Downloaded application

Title	Downloaded Application
Description	The application will require being downloaded, and not available in an online only form
Priority	Moderate: 3

### 2.4 Hardware Constraints

#### 2.4.1 User-End Hardware

Title	User-End Hardware
Description	The User will need a laptop or desktop in order to download and run the software. (it will not be available for mobile)
Priority	Moderate: 3

## 2.5 Network Constraints

### 2.5.1 Internet Download

Title	Internet Download
Description	The User will require an internet connection in order to download the application, but not when using the application
Priority	Important: 2

## 2.6 Deployment Constraints

### 2.6.1 Webpage for distribution

Title	Webpage for distribution
Description	Will use/design a webpage from which the application can be downloaded for use (beyond the github repository)
Priority	Moderate: 3

## 2.7 Transition & Support Constraints

## 2.8 Budget & Schedule Constraints

### 2.8.1 Budget

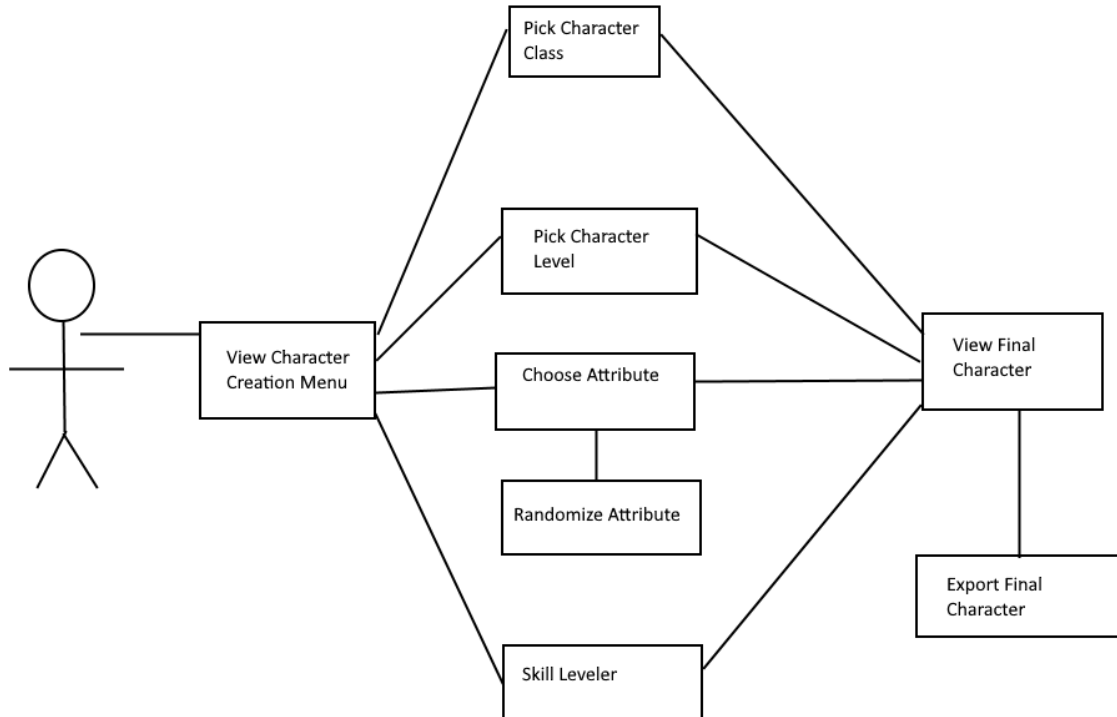
Title	Budget
Description	There is no budget for this project
Priority	Lowest: 5

### 2.8.2 Due Date

Title	Due Date
Description	This software must be finished by a specific date
Priority	Mandatory: 0

## 3. Requirements Modeling

### 3.1.1 Use case diagram



## 4. Evolutionary Requirements

### 4.1 Functional Requirements

#### 4.1.1 Full Random

Title	Full Random
Description	Creates a completely random character except class and level
Priority	Moderate: 3
Precondition(s)	User needs to be in character creation menu, and have level and class selected
Postconditions(s)	All traits will be picked and selected

#### 4.1.2 Multiclass Maker

Title	Multiclass Maker
Description	Adds ability for user to create a multiclass character
Priority	Moderate: 3
Precondition(s)	User is in character creation menu
Postconditions(s)	User will need to select all options for multiclass character

#### 4.1.3 Save Character

Title	Store Character
Description	Saves your character to storage in the application
Priority	Important: 2
Precondition(s)	User has to be in view final character menu
Postconditions(s)	Character would be saved in stored character menu

#### 4.1.4 View Saved Characters

Title	View Saved Characters
Description	Navigates to menu with saved characters
Priority	Important: 2
Precondition(s)	Needs to be in main menu
Postconditions(s)	Takes user to view saved character menu

### 4.2 Non-Functional Requirements

#### 4.2.1 Saved Character Database

Title	Saved Character Database
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Description	Stores all saved characters to be accessed later by the user
Priority	Mandatory: 2
Applicable FR(s)	4.1.3, 4.1.4