

# Software Requirements Specification (SRS)

## 1. Introduction

### 1.1 Purpose:

- The purpose of the software is to assist teachers educate students with learning disabilities by accommodating to both the teachers and student's needs.

### 1.2 Scope:

#### Product Name

- The software will be named: All-Inclusive Learning Software (ALIS)

#### Overview

- The software will allow teachers to cater to students needs in an online environment. This will accommodate all needs including students who are mute using text-to-speech, hearing-impaired, and physically impaired students who requires a simple but detailed menu to interact. This is all done while offering the content in an interactive and encouraging environment created by the students.

#### Goals

- The ALIS is to create a simple educational software for students with special needs, to give them the best education by building the software around their needs. The software will be very simple and interactive to encourage the learning process. The ALIS is will be similar to other software like, Microsoft Teams, but offering more interactive features on top of the accommodations mentioned before. Teachers can invite students to meetings, drop in the lesson material when needed, and divide students into groups while listening in to how each group is interacting. Teachers and intervene when needed and encourage positive mentalities towards learning.

#### Our SMART plan:

- *Specific* - We want ALIS to help students with special needs education to flourish in an online or at home setting.
- *Measurable* - We want to offer this to all students at the school that requires it. We also hope this will be a lasting and reliable product the school can rely on.
- *Achievable* - The before mentioned goals are achievable and we hope to add more features and accommodate to more needs to help more students learn.
- *Relevant* - We want ALIS to be a positive impact on students education in both a online and at home setting regardless if there is a pandemic or not.
- *Time bound* - We hope to get this finished within the next 6 months, within budget, and on-time.

#### Out of Scope

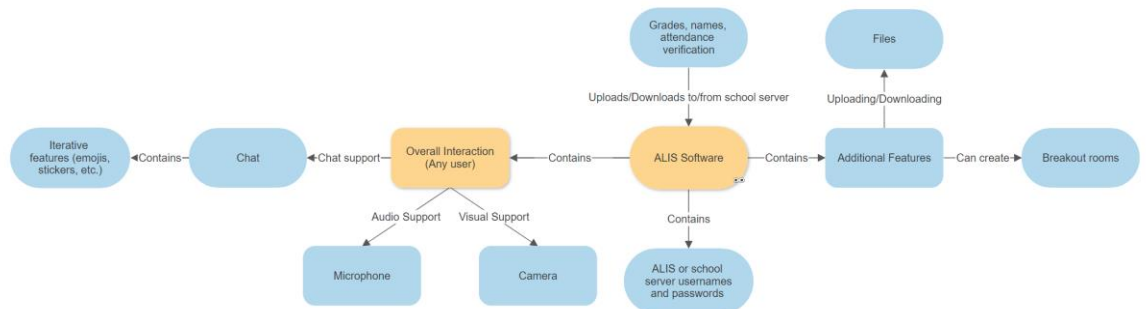
- Some features or issues that are out of scope include:

- How often the software is maintained.
- The needs that are accommodated.
- The content being monitored.
- Updating the software with new features.

### 1.3 Product overview:

#### 1.3.1 Product perspective:

Context Diagram:



Constraints:

CCHS-19 Languages to be included upon release are English and Spanish with more to be added later	BL
CCHS-20 All data must be stored in the school's or school district server.	BL
CCHS-21 All updates must be done outside of school hours.	BL
CCHS-22 The data stored must not exceed storage limit on the server unless approved from the school and school district.	BL
CCHS-23 Teachers must have access to all administrative powers within their live lesson.	BL
CCHS-24 The Software must be compatible browsers Chrome, Safari, Firefox, Bing, and Microsoft Edge, as well as Windows, Mac,...	BL
CCHS-31 All software features must comply with state and federal laws.	BL
CCHS-32 No third-parties tools should have access to any data.	
CCHS-33 When creating the server, the cost of the server must no exceed the allotted amount.	






















#### 1.3.2 Product functions:

- Accommodate to student's special needs like text-to-speech, audio-to-text, a customizable simple interface for the physically impaired, etc.
- Teachers allowing to send student content/materials and put students in breakout groups.
- Teachers allowed to hear the student's interactions and regulate it when needed.
- Students and teachers have interactive methods to encourage each other.
- Both teachers and students having microphone and web camera access, but teachers have ultimate control over who can talk and who can't.

### 1.3.3 User characteristics:

- The users this product will be made for teachers that are wanting a simple app/website to help their students with disabilities learn better. Students with disabilities have trouble learning and using complex systems that we may find simple. The idea is to make a product for them, that is as simple as can be, while offering many different features for both students and teachers.

### 1.3.4 Limitations:

 CCHS-7 User Data	 
 CCHS-25 Funding	 
 CCHS-26 Project finish date	 
 CCHS-27 Data access	 
 CCHS-28 User system access (microphone, camera, keyboard inputs)	 
 CCHS-29 Content on the site	 
 CCHS-30 Maximum storage space amount	 

### 1.4 Definitions:

- LEP - Limited English Proficiency. These are students that come from non-English countries or who speak limited English. Students placed in this group are taught English from the basics to prepare them for the adult world.
- ESE - Exceptional Student Education. These students are what most of us described gifted students. Students placed in this group place higher than average students and are given tougher courses to give them a challenge and nurture their education.
- MC - Modified Curriculum. These students have some sort of learning disability. Students in this group have issues learning, communicating, or understanding and require more help and attention to help them.
- IEP - Individual Educational Plan. This is a legal document describing a student with learning issues. It describes what is their specific condition, what have they been taught, recommendations on how best they learn, and what are their needs and goals.

## 2. References:

- High school within Collier County
- Collier County Public School (CCPS) - <https://www.collierschools.com/>
- Collier County Code of Student Conduct - <https://www.collierschools.com/Page/284>
- Collier County School Board - <https://www.collierschools.com/schoolboard>

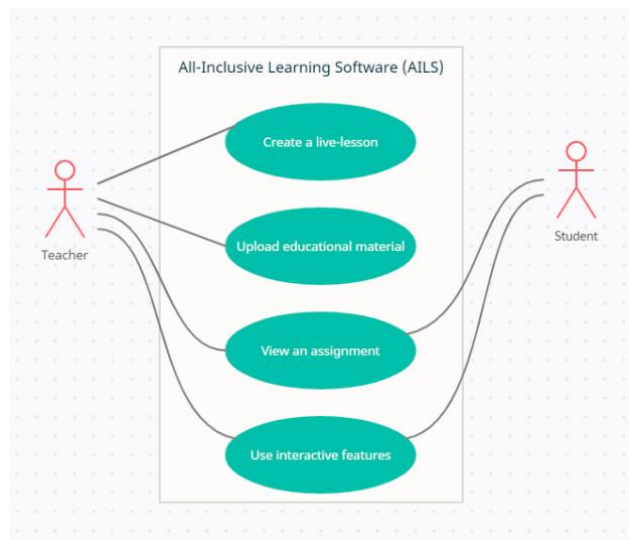
- Collier County School Board Policies - <https://go.boarddocs.com/fl/collier/pl/Board.nsf/Public?open&id=policies>
- Mrs. Lewis - Teacher

### 3. Specific requirements:

#### Set of Requirements:

Key	Summary	Description	T	Linked Issues	Labels
CCHS-18	Only technical support can add/remove/modify features.	Only technical support can add/remove/modify features. This will allow only trained users to perform maintenance/updates on the software.	✓		Functional
CCHS-17	Only the teacher or approved user can mute chat and/or microphones.	If a teacher or approved user (like a teaching assistant) can mute all microphones or block people from typing in chat. If the teacher/approved user wants to they can do both.	✓		Functional
CCHS-16	Only the teacher can remove people from the live lesson.	Only a teacher can remove anyone from a live lesson. If a unauthorized user joins or if there is a issue, only the teacher can remove any user whereas assistants can mute them.	✓		Functional
CCHS-15	Any user is allowed to use their microphone to communicate.	Any use the joins the live lesson can use their mic to communicate, but if they wish to use the chat box they can.	✓		Functional
CCHS-14	Only the teacher or approved users can add people to the live lesson.	To control how and who can get into the live lesson, only the teacher or a approved user (like a teaching assistant) can add people to the lesson. This will make it difficult for unauthorized users to get into the live lesson.	✓		Functional
CCHS-13	Only the teacher or approved users can listen in on breakout rooms.	When a breakout room is created, groups cannot listen in to what other groups are saying/discussing, only a teacher or a approved user (like a teaching assistant) can do that. This helps teachers moderate what is being said and how the students are learning, as well as students are focusing on what is being said in their group and not what's going on around them.	✓		Functional
CCHS-11	Only the teacher or approved users is allowed to upload files/lesson material.	After a live lesson is created only the teacher is allowed to upload files and lesson material. This is to prevent students or any unauthorized users who accesses the live lesson to upload any unsafe content.	✓		Functional
CCHS-10	Only the teacher or a approved user is allowed to create breakout rooms and move participants/students.	After a lesson is created only the teacher or a approved user (like a teaching assistant) can create breakout rooms. This is so students can work in small groups and interact to get to know each other while working on the lesson material.	✓		Functional
CCHS-9	Any user that joins a live-lesson can use the interactive features.	When a teacher creates the lesson, a chat box is created. When anyone joins that lesson anyone can use the interactive features in that chat box unless the teacher has disabled it.	✓		Functional
CCHS-8	Any user that joins a live-lesson can type in the chat box.	When a teacher creates the lesson, a chat box is created. When anyone joins that lesson anyone can type in that chat box unless the teacher has disabled it.	✓	CCHS-12	Functional

#### Use Case Diagram and Use Cases:



Name and goal	Create a live lesson. The goal of this case is to allow specified users to create a live lesson.
Unique identifier	<b>CLL-1.</b> Stands for “Create Live Lesson” version “1”.

Description	This action is when a teacher creates a live lesson for her students to join.
Pre-conditions	The website is on standby for an approved user to create a live lesson.
Post-Conditions	When the lesson is along with the password/code is sent to her in chat, for her students to join.
Basic Flow	A teacher creates a lesson, sends the password to her students, then once the students join the lesson begins and the teacher uploads the lesson material.
Alternative Flows	If a teacher is having issues to create a live lesson, another teacher can create one and give access to that teacher and invite her students.

Name and goal	Upload educational material. This allows an authorized user to upload a file to the lesson.
Unique identifier	<b>UF-1.</b> Stands for “Upload Files” version “1”.
Description	This is when an authorized user uploads a file to the live lesson. If the wrong file is uploaded, it can be deleted. Any user in the lesson can view the file.
Pre-conditions	The software is on standby for it to upload the files to the lesson.
Post-Conditions	Once the material is uploaded anyone can view the file in the lesson and the system is back on standby.
Basic Flow	After creating a lesson, the teacher will upload the files either before or during the lesson for the students to learn from.
Alternative Flows	The assignment can be re-uploaded, or a version can be uploaded.

Name and goal	View an assignment. Once an assignment/file is uploaded any user in the lesson and view and download it.
Unique identifier	<b>VF-1.</b> Stands for “View File” version “1”.

Description	Once an assignment/file is uploaded any user in the lesson can view and download it. The files can be edited and redownloaded by approved users.
Pre-conditions	A file has been uploaded.
Post-Conditions	Once a file is uploaded then it is viewable.
Basic Flow	A file is uploaded and can be viewed by anyone in the lesson.
Alternative Flows	If there are no files uploaded then it will display a message that there are no files uploaded at that time.

Name and goal	Use interactive features. This will allow user to be interactive in the lesson to encourage learning.
Unique identifier	<b>IF-1.</b> Stands for “Interactive Feature” version “1”.
Description	This is an action that contains all of the interactive features like customized greenscreen effects, emojis, stickers, etc.
Pre-conditions	All interactive features will be loaded in once the lesson has begun.
Post-Conditions	After the user has chosen an interactive feature, the feature will appear in either chat or on screen.
Basic Flow	The teacher or student will join, see the wide range of interactive features, choose one, and it will display on their video or in chat.
Alternative Flows	The alternative way is that the user can use emoticons.

#### 4. Verification:

Key	Summary	Verification Approach
CCHS-18	Only technical support can add/remove/modify features.	Test
CCHS-17	Only the teacher or approved user can mute chat and/or microphones.	Test
CCHS-16	Only the teacher can remove people from the live lesson.	Test
CCHS-15	Any user is allowed to use their microphone to communicate.	Demonstration
CCHS-14	Only the teacher or approved users can add people to the live lesson.	Demonstration
CCHS-13	Only the teacher or approved users can listen in on breakout rooms.	Test
CCHS-11	Only the teacher or approved users is allowed to upload files/lesson material.	Test
CCHS-10	Only the teacher or a approved user is allowed to create breakout rooms and move participants/students.	Demonstration
CCHS-9	Any user that joins a live-lesson can use the interactive features.	Inspection
CCHS-8	Any user that joins a live-lesson can type in the chat box.	Inspection

#### 5. Appendices:

##### 5.1 Assumptions and dependencies:

- The student's education and safety it's the schools top priority.
- The privacy of the students and staff data is important to the school and the school district.
- The level of education and the content of the material is created by the local school district.
- The parents are relying on the schools to prepare their children for the outside world.
- The teaching ability of the teachers are certified (state certified, degrees, etc.).

##### 5.2 Acronyms and abbreviations:

- LEP - Limited English Proficiency.
- ESE - Exceptional Student Education.
- MC - Modified Curriculum.
- IEP - Individual Educational Plan.