Use case and scenarios for SkyApp

1. Use case

Use case	Actor(s)	Description	Interaction Pattern
A math teacher is preparing class work for Class 4A using SkyApp	Teacher	Teacher could use the app to prepare the content before the class	Teacher
A math teacher is teaching in class	Teacher	Teacher could use white board to teach in class and save the notes of the class.	Teacher->Class
The math teacher is delivering the classwork during/after class	Teacher Students	Teacher uses the whiteboard to give questions and distribute them to students	Teacher->Class/ Student
Answer Questions	Students	Student use whiteboards to answer questions and submit it to the teacher	Student->Teacher
Praise Students	Teacher/Students	Teacher could give icons to students by their performance on tests.	Teacher->Students
Faciliating sharing in the classroom	Teacher Student	Teacher uses the control panel to change the project to show students' work	Teacher->Class Student->Class
Presentation of the students' data objects	Teacher Students		
Game	Teacher Student		

2. Scenarios for each use case

1. Prepare Class Work

Use Case Name	A math teacher is preparing class work for Class 4A using SkyApp	
Actor(s):	Teacher	
Description:	Teacher could use white board to prepare notes for the class	
Reference:	SkyApp	
Typical Course of Events (Scenarios):	**Actor Action** **Step 1:** Initiate this use case when the teacher logs in. Teacher inputs account and password that have been stored in the database, chooses language mode and clicks login button. **Step 3:** Teacher clicks the "add" button to add a new whiteboard. **Step 5:** Teacher clicks the whiteboard. **Step 7**: Teacher clicks the "draw" button and	**System response:** **Step 2:** The app goes to the "Main View" page. **Step 4:** The app shows a whiteboard on the left top corner. **Step 6:** The app goes to the "Note View".

	draw on the whiteboard and clicks "finish".	
		Step 8: The app shows the drawing on the whiteboard.
	Step 9: Teacher clicks the "add picture" button to add a picture from the gallery.	
		Step 10: The app shows the picture on the left top corner on the whiteboard.
	Step 11: Teacher clicks "add text" button and inputs the text and clicks "Done" to add a text.	
		Step 12: The app shows the text on the left top corner
	Step 13: Teacher clicks "internet" button to use the internet. **Step 14**: Teacher clicks the "camera" button to take a picture of the document.	
		Step 15: The app shows the picture of the document on the left top corner.

	Step 16: Teacher clicks "save" to save the notes to database. **Step 18**: Teacher clicks "back" button to go back to the "Main View"	**Step 17:** The app shows the success message.
Alternative courses	None	
Pre-conditions:	The teacher logs in successfully.	
Post-condition:	Teacher has successfully created new note.	
Assumptions:	None	
Remarks:	For every object the teacher adds on the whiteboard, he/she could single click or "long press" it to edit.	

2. Teach In Class

Use Case Name	A math teacher is teaching in class	
Actor(s):	Teacher	
Description:	Teacher could use white board and the projector to show the notes and teach in class as a real-life blackboard.	
Reference:	SkyApp	
Typical Course of Events (Scenarios):	**Actor Action** **1. Teacher connects the ipad with the projecter.** 2. **The following steps are the same with the use case "prepare class work"**	**System response:** **The steps are the same with the use case "prepare class work"**
Alternative courses	In step 16, teacher could choose not to save the note for class, and clicks "back button. The app will show a message, teacher clicks "yes" and goes back to the "Main View" page.	
Pre-conditions:	The teacher finished the use case "prepare for the class"	
Post-condition:	Teacher has successfully taught the class using the whiteboard the projecter.	
Assumptions:	None	

Remarks:	For every object the teacher adds on the whiteboard, he/she could single click or "long press" it to edit.

3. Delivering Class Work In/After Class

Use Case Name	A math teacher is teaching in class	
Actor(s):	Teacher & Students	
Description:	Teacher assigns exercise and tests in class.	
Reference:	SkyApp	
Typical Course of Events (Scenarios):	**Actor Action** **Step 1**: Teacher finished the steps in the use case "Prepare for the class". **Step 2:** Teacher clicks the "draw" button to give questions to students. **Step 3**: Teacher clicks "teacher mode" button to choose "Open answer" and then clicks "OK".	**System response:** **Step 4:** The app shows a successful message. The "teacher mode" button changes into

	Step 5: Teacher clicks the "answer box" button in red and put it to cover the text. **Step 6**: Teacher clicks the answer box to give answer **Step 7**: Teacher clicks "hide all answers" **Step 9**: Teacher clicks "distribute" and choose a group, then clicks "distribute" at the bottom.	"distribute" button and is in gray. At the bottom, the tool bar shows "answers" button in gray. **Step 8**: The answer box shows the "lock" **Step 10**: The app shows a successful message.
Alternative courses	In **Step 2**, teacher could also 1) Clicks "text" button to type something on the whiteboard; 2) Clicks "gallery" button to choose a picture from the iPad; 3) Clicks "camera" button to take a picture. In **Step 6**, if the teacher forgets to give the answer in the answer box, clicks the "hide all answers" button and clicks "distribute", the app will show a	

	alert message. And the locked answer box will become editable. In **Step 9,** if the teacher forgets to choose a group, and clicks "distribute", the app will show an alert message "Please choose a group."
Pre-conditions:	The teacher goes through the steps he/she needs in the use case "prepare for the class".
Post-condition:	Teacher has successfully distribute the exercise/test to the target students.
Assumptions:	Followed by the use case **"Students answer questions."**
Remarks:	For every object the teacher adds on the whiteboard, he/she could single click, double click or "long press" it to edit.

4. Student Answer Questions

Use Case Name	The students do the exercise/tests given by their teacher.
Actor(s):	Students
Description:	In students mode, students could do the exercise and tests given by teachers.
Reference:	SkyApp

Typical Course of Events (Scenarios):	**Actor Action** **Step 1:** Student-Tansy logs in and enters to the "Main View" page. **Step 3**: Tansy clicks on a whiteboard to open the exercise. **Step 4**: Tansy double clicks the answer box and type in the answer. **Step 5**: Tansy clicks "save" button to save the answer. **Step 6**: Tansy clicks "back" button to go to the "Main View" page.	**System response:** **Step 2**: The app shows the exercise with a tag on the left top corner of the whiteboards. **Step 7**: The app changes the "question" tab to "answered already".
Alternative courses	In the use case "**prepare for the class**", **Step 3**, if teacher chooses the answer to be "fill in the blanks", in **this use case, step 2**, the app will show the "question" and "testing" tab on the whiteboard. Still, in **Step 5**, if students clicks "submit", and typed in the right answer, the app will show a	

	message “You’re right.” But if the answer is wrong, the message will show you are wrong and let you try it again.
Pre-conditions:	The teacher distributes the questions to students successfully.
Post-condition:	Students finish the questions given by teachers.
Assumptions:	Followed by the use case “**Praise Students**”.
Remarks:	For every object the teacher adds on the whiteboard, he/she could single click or “long press” it to edit.

5. Give Praise to Students

Use Case Name	A math teacher gives praise to students	
Actor(s):	Teacher Students	
Description:	Teacher could give students praise by looking at their performance on tests.	
Reference:	SkyApp	
Typical Course of Events (Scenarios):	**Actor Action** **Step 1**: Teacher goes to the “Note View” page. **Step 2**: Teacher clicks “Performance” icon.	**System response:** **Step 3**: The app could calculate the marks, trials, and time automatically and show

	Step 4: Teacher clicks "view" button to see the students' answers. **Step 5**: Teacher clicks the "back" button to go to the "Note View" page. **Step 6**: Teacher clicks "distribute" and choose a group and a gift, then clicks "OK".	the results on the window. **Step 7**: The app shows a success message.
Alternative courses	None	
Pre-conditions:	Students have already submitted the answers to teachers.	
Post-condition:	Students receive the icons teachers send to them.	
Assumptions:	None	
Remarks:	For every object the teacher adds on the whiteboard, he/she could single click or "long press" it to edit. I think this kind of user experience is a little bit uncomfortable.	