Topic	SELF-DESIGNED GAME - 1	
Class Description	**Students break down the big game idea into smaller simpler programming tasks. Students start to design the self-designed game by pair programming with the teacher.**	
Class	**C45**	
Class time	**45 mins**	
Goal	• Design / add features in the game by writing code. • Test and debug the code for the game.	

Resources Required	• Teacher Resources
	  ○ VS Code Editor
	  ○ Laptop with internet connectivity
	  ○ Earphones with mic
	  ○ Notebook and pen
	• Student Resources
	  ○ VS Code Editor
	  ○ Laptop with internet connectivity
	  ○ Earphones with mic
	  ○ Notebook and pen	

Class structure	**Warm-Up** **Teacher-Student Collaborative Activity** **Wrap-Up**	**5 mins** **35 mins** **5 mins**
• **WARM-UP SESSION - 10mins**		
Teacher starts slideshow  **for slide 1 to 2** .		

Activity details	Solution/Guidelines
Hi, so good to see you again! How have you been? Are you excited to learn something new? **Following are the WARM-UPsession deliverables:**	**ESR**:Thanks, yes I am excited about it.

• Connecting students to the previous class. • Introduce students to the coding environment - Workspace, blocks and output.	Click on the slide show tab and present the slides.

Teacher-Student Collaborative Activity - 35 min

Teacher starts slideshow  **from slides 3 to 4**
Refer to speaker notes and follow the instructions on each slide.
Additional game slide from 15 to 29
Refer to speaker notes and follow the instructions on each slide

	Teacher Action	Student Action
		Student listens.
	Before we even start to code, we would like to break the whole idea of the game into smaller problems that we can solve by programming. This is called **decomposing** a problem. The idea is that any complex project can be accomplished if we break them into sufficiently **smaller** and **specific** tasks. Good developers are equally good at decomposing a problem. We have been doing the same thing while designing different games in our classes. We solved several smaller problems and eventually built the entire games. Can you give an example of a game we built in the class and how we broke into smaller problems?	**ESR:** *The student gives an example of any of the games built during class.*

	Example - pong 1. We first drew all the objects in the game. 2. We made the player paddle move with the mouse 3. We learned to control the ball 4. We made the ball bounce around the edges and the paddles 5. We added AI to the computer paddle to follow the ball.
Let us try to decompose the game into smaller features or problems. *Guide the student to break down the game and list it into smaller and specific problems.* *Teacher can revise the game story.*	*The student writes the different smaller problems into a notepad or excel sheet.*
We will be trying to solve each smaller problem one by one. Everytime we solve a smaller problem, we will be closer to our final game. While we are working on our game, this list might change.	-
Pair program with the student to add a code for a feature in the game by solving the first problem in the list.	*Student codes to solve the first problem in the list.*

If the student has selected a game from the 3 game options given then the teacher can find the code references links. *1} Hot Air Balloon* *2} Shoot the Zombie* *3) Moon Lander*	
Guide the student to test the new game feature.	*Student runs the code.*
Help the student debug the code in case of unexpected behavior.	*The student pairs programs with the teacher to solve the bugs.*
-	*Student picks up another feature to add to the game and repeats the process.*
Teacher Guides Student to Stop Screen Share	
• **WRAP-UP SESSION - 5 Mins**	
FEEDBACK • **Review the progress in the game and what is left.** • **How to proceed further?**	
Teacher starts slideshow  **Slide 6-14**	
Activity details	**Solution/Guidelines**
Run the presentation from slide 6 to slide 14 **Following are the WRAP-UPsession deliverables:** • **Revise the concepts** • **Explain the facts and trivias** • **Project for the day** • **Next class challenge** • **Additional Activity**	Guide the student to develop the project and share with us

Teacher ends slideshow 		
Step 4:Project Name: Make your own game-2	**Goal of the Project:** In Class 45, you have revised different concepts covered so far and tried to add all the remaining elements, characters, and non-PC for this project. This is part 2 of the game creation project. In this, you have to set up all the required elements in designing the game and create the beginning of the game application. ** This is a continuation of Project 44, so make sure you complete that before doing this project. ** **Story:** Once the director finalizes his/her storyline, they focus on casting actors. Also, think about their roles and actions that are needed to be performed by them. In the same way, you have to create characters, PC or NPC to create your fantastic game! I am very excited to see your project solution and I know you both will do really well. Bye Bye!	
Teacher ends slideshow 		

Teacher Clicks ✖ End Class	
ADDITIONAL ACTIVITIES	
Additional Activities *Encourage the student to write reflection notes in their reflection journal using Markdown.* Use these as guiding questions: ● What happened today? ○ Describe what happened. ○ The code I wrote. ● How did I feel after the class? ● What have I learned about programming and developing games? ● What aspects of the class helped me? What did I find difficult?	*The student uses the Markdown editor to write their reflections in a reflection journal.*

Activity	Activity Name	Links
Additional Games: Code for Reference	Hot Air Balloon	https://github.com/vishikagurbani/Hot-Air-Balloon-stage-1
	Shoot the Zombie	https://github.com/vishikagurbani/Zombie-Shooter-stage-1
	Moon Lander	https://github.com/pro-whitehatjr/C45_lunar_lander
Teacher Reference visual aid link	Visual aid link	https://curriculum.whitehatjr.com/Visual+Project+Asset/BJFC-PRO-V3-C45-withcues.html