**Let’s get started with Allegro: Chapter 3 Projects**

**Mini Project 1:** Create a scene using vector graphics where you have a background.  Your background MUST include at least one example from each of the different types of  vector graphics calls

At least 1 line, 1 circle, 1 ellipse, 1 rectangle, 1 triangle, 1 polygon and 1 text output.  At least one of these should be an example of a filled area and one an example of a drawn area.  You will be modifying this next class to add motion

* DUE DATE: **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Mini Project 2:** You are to modify your scene so that you now have 2 additional objects.

* One object should move either across or up and down and when it disappears out one end, it shows up on the other end
* One object should move across or up and down and then bounce back and forth
* DUE DATE: **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

### Mini Project 3: [Boxed In Bouncing Ball](https://blackboard.aacps.org/webapps/assignment/uploadAssignment?content_id=_279826_1&course_id=_2218_1&assign_group_id=&mode=cpview) Create a boxed in bouncing ball.

* DUE DATE: **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Remember the game loop:**

**SETUP, GET USER INPUT, UPDATE INTERNALS, UPDATE DISPLAY, GAME OVER?, SHUTDOWN**

**Create a game from your bouncing ball:**

* DUE DATE: **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

Suggestions: PONG or BreakOut or ??

Game should include the

* **Title Page** for the game containing Game title and Game Directions
  + Game Play – how game is played
  + How game is scored
  + How game ends
* Game Page for playing the game
* Game Over page giving the user the statistics for the game

For the moment,

* if a person presses the left arrow on the keyboard then **key[KEY\_LEFT]** is true
* if a person presses the up arrow on the keyboard then **key[KEY\_UP]** is true
* if a person presses the right arrow on the keyboard then **key[KEY\_RIGHT]** is true
* if a person presses the down arrow on the keyboard then **key[KEY\_DOWN]** is true
* or you can use the WASD keys **key[KEY\_W] or key[KEY\_A] or key[KEY\_S] or key[KEY\_D]**

**RUBRICS:**

**Mini Project 1:** **10 project points**

**Mini Project 2: 5 project points**

**Mini Project 3:**  **5 project points**

**Bouncing Ball Game Rubric 20 project points**

|  |  |  |
| --- | --- | --- |
| Decsription: | Points possible | Points earned |
| Game Startup Page containing description of:   * Game Play * How game is scored * How game ends * Your name | 5 |  |
| Main GamePlay page  Smooth transition from Startup page  Use a Appealing Background.  Game play  At any time, if a user presses <esc>, the game should end  Smooth transition to Game Over page | 10 |  |
| Variables:  Must use at variable(s) to keep up with score(s). | 2 |  |
| Game Over screen:  Once the conditions are satisfied for the game to be over, the Game Over screen should appear with the statistics for the user. You can also use this to ask if they want to play again. | 3 |  |
| Total | 20 |  |