***Documentation Packet [ 03 05 09 25 ] Sep 5th 2025***

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| Student Name: |  |
| Goals:  1. Begin Studying for JavaScript Certification 2. Draw on a Canvas with animation frames | Events:  1. No School Monday |
| Included Documentation  1. Canvas Mover 2. CIW Chapter 1 3. Reflections | Required Documentation:  1. Canvas Mover 2. CIW Chapter 1 3. Reflection |
| Changes/Notes: | |

# CIW Chapter 1

1. Log into ucertify.com with your school Google account.
2. Begin Chapter 1
3. Complete and submit according to the “CIW Submission Rules” document in DocPac 03

# Canvas Mover

In this assignment, you will move a **“player” image** around a canvas using user inputs. The image’s **top-left corner** will move in the direction you press on the chosen control scheme.

**Steps**

1. **Create the HTML file**
   1. Name it FirstnameLastname.html (replace with your name).
   2. Save it in the canvasMover folder in this DocPac. If the folder does not exist, create it.
2. **Set up the canvas**
   1. In the HTML file, create a <canvas> element that is **800 pixels wide** and **600 pixels tall**.
3. **Create the player object**
   1. Define a JavaScript object to represent the player’s avatar with the following properties:
      1. x and y: the horizontal and vertical position of the top-left corner.
      2. w and h: the width and height of the avatar.
      3. img: the relative file path to the image you will use.
         1. You may download or create an image.
         2. Keep the image small for best results.
4. **Choose a control scheme**
   1. Decide whether to use **keyboard**, **gamepad**, or **touch controls**.
   2. Configure your program to read **up, down, left, right** inputs from the chosen method.
5. **Set the input speed** (between 0 and 1).
   1. Gamepads: joysticks provide a float value that you can multiply by speed.
   2. Touch controls:
      1. Use distance from initial touch point for joystick-like behavior, **or**
      2. Use four touch buttons that act like keys.
   3. Keyboard: keys are either on (1) or off (0).
6. **Create the animation loop**
   1. Use requestAnimationFrame() to run an update function that:  
      a. Updates the player’s position:
      1. If a direction is pressed, adjust x and y by multiplying the input amount by a set player speed (start with 2).
      2. Example: pushing the joystick halfway left moves x by -0.5 \* 2. Pressing the down key moves y by 1 \* 2.  
         b. Prevents the player from leaving the canvas:
      3. If x < 0, set x = 0.
      4. If y < 0, set y = 0.
      5. If x + w > canvas.width, set x = canvas.width - w.
      6. If y + h > canvas.height, set y = canvas.height - h.  
         c. Clears the canvas by drawing a filled rectangle over the entire area.  
         d. Draws the player’s image at its current x, y, w, and h.  
         e. Handles touch controls if used:
      7. Draw a joystick box (for analog-style input), **or**
      8. Draw four directional buttons (for key-style input).  
         f. Displays debug text in the **top-left corner** showing:
      9. The chosen control method (keyboard, gamepad, or touch).
      10. The current x and y values of the player.
7. **Test your program thoroughly** before submitting.

# Reflection

**Have you applied for the job listing or submitted bonus work last week or this week? Why or why not?**

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**How motivated are you to get pogs now that you are in the upper class? What kinds of things would you like to spend them on?**

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**What did you do to understand the instructions in your assignments this week? What were the advantages/disadvantages of doing it this way?**

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**What was one mistake you made in school or otherwise that you can recognize? What can you do in the future to prevent it from happening again?**

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# Grading

# CIW Lesson 11 *CIW Submission Rules, DP09*

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| **1-2, 4** | Correct directory structure, with correct naming convention | |  |
| **3** | Read all pages | Used all Flash Cards |  |
| All Quizzes over 80% | All Exercises over 80% |
| **4** | All labs completed as assigned | |  |

# Canvas Mover

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| Pull Request correct | Works as described |  |  |

# DocPac and Reflection *DocPac Submission Rules, DP09*

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| **1** | DocPac is turned in on time |  |
| **3** | a. DocPac is neatly folded |  |
| **3** | b. DocPac is not stained or damaged |  |
| **3** | c. No doodles, scribbles, or unnecessary writing |  |
| **4** | d. Answered each question in each prompt fully (no short answers) |  |
| **4** | e. Spelling and handwriting |  |
| **4** | f. No repeated answers from other DocPacs |  |
| **4** | g. Did not paraphrase assigned work |  |
| **6** | You are prepared to justify the use of any AI (you know what it does and why) |  |