**Ensuring outputs match objectives with screenshots**

| **Name of Educator** | **Suraj Mourya** |
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| **Project title** | [Interactive-Graph-Algorithms-Visualizer](https://github.com/surajmourya/Interactive-Graph-Algorithms-Visualizer) |

| **Tasks listed in your Educator's template** | **Objectives listed in your educator's template** | **Outcomes** | **Screenshots of outputs** |
| --- | --- | --- | --- |
| **Task- 1** | Set up the Graph Visualizer Environment | In this initial task, the environment for the graph visualizer is prepared. This involves setting up necessary libraries (like NetworkX and Matplotlib) and initializing a graph structure that users can interact with. |  |
| **Task-2** | A) Implement and Visualize BFS | This task focuses on implementing Breadth-First Search (BFS) and Depth-First Search (DFS) algorithms. Users will see how these traversal algorithms work as they interactively add nodes and edges, viewing the traversal order in real-time. |  |
|  | B) Implement and Visualize DFS |  |  |
| **Task 3** | Add Dijkstra’s Algorithm and Shortest-Path Visualization | The third task introduces Dijkstra’s algorithm for finding the shortest paths. Students will implement the algorithm and visualize the shortest paths, enhancing their understanding of pathfinding techniques in graph theory. |  |
| **Task 4** | Test and Refine the Visualization Tool to Ensure Usability |  | In this final task, students will test the tool to ensure it operates smoothly and is user-friendly. They will also make refinements, such as adjusting the display for clarity or improving interactive features, to ensure a seamless experience. |