

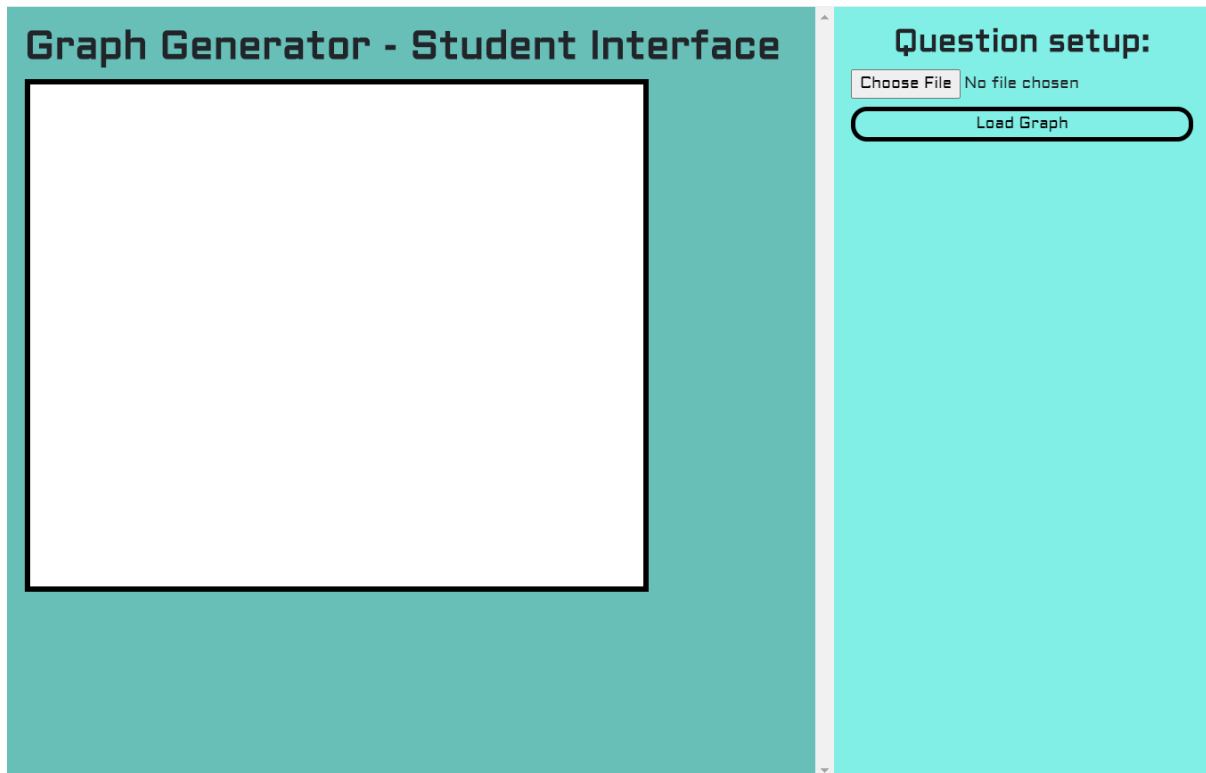
2020

GraphGenerator

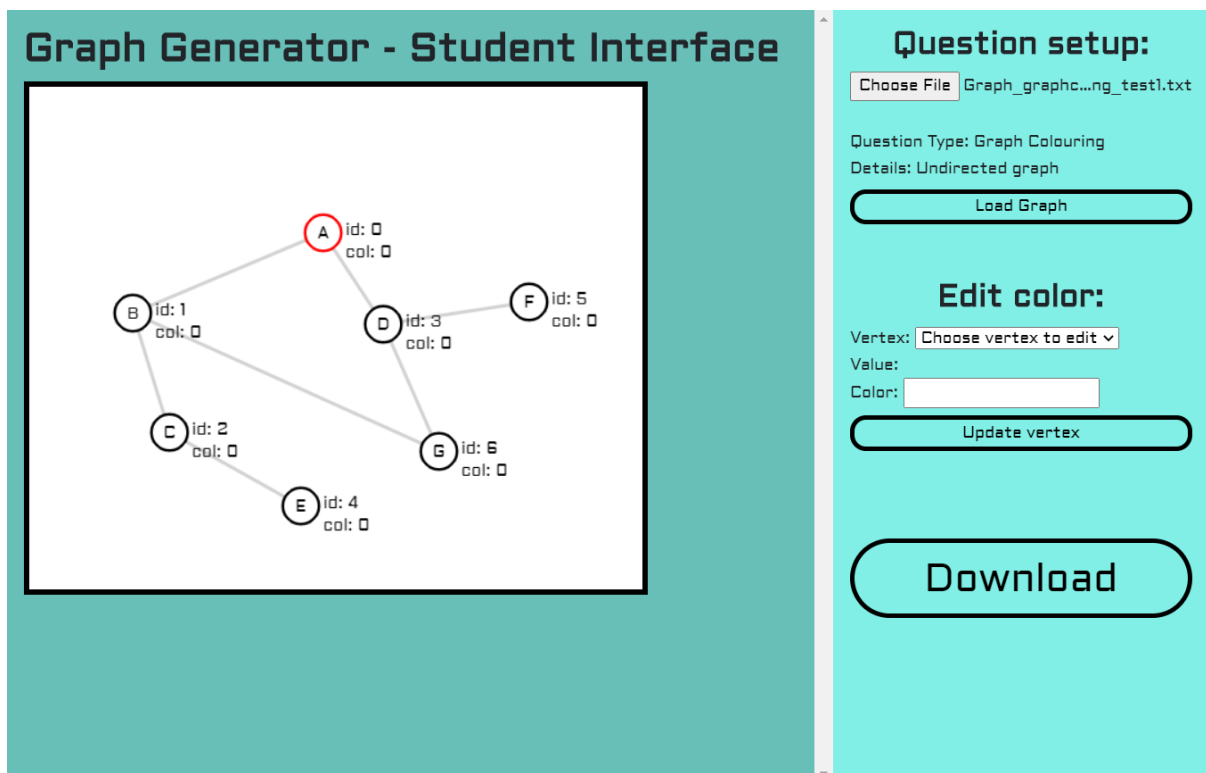
STUDENT MANUAL

UNIVERSITY OF THE WITWATERSRAND

- Uploading a question



On opening the Graph Generator, you'll see a page including the drag-and-drop area and a prompt to choose a file. Click the "Choose File" button to upload the question file (.txt) that your instructor has provided, and then click "Load Graph" to load the question and populate the drag-and-drop area. You should then see a screen similar to the following:



- **Completing the question**

After loading the question, you should see the question type, any extra details (whether the graph is weighted and/or directed), and tools to edit the graph to answer the question:

The screenshot displays the 'Graph Generator - Student Interface'. On the left, a graph is shown with 5 nodes: A (id: 0, col: 0), B (id: 1, col: 0), C (id: 2, col: 0), D (id: 3, col: 0), and E (id: 4, col: 0). Edges are labeled with weights: A to B (3), A to E (1), B to C (1), B to D (2), C to D (3), and E to D (1). On the right, the 'Question setup' section shows 'Question Type: Breadth First Search' and 'Details: Directed graph and weighted edges', with buttons for 'Load Graph' and 'Draw edges'. Below this is the 'Edit root' section with a dropdown 'Set Root: Choose root vertex' and buttons for 'Set Root' and 'Clear Root'. To the right of the setup are 'Add edge' and 'Delete edge' sections, each with a dropdown 'Edge: Choose edge to add/delete' and a corresponding button. A large 'Download' button is at the bottom right.

- Edit root:

Select a vertex from the dropdown list to mark it as the root node of your graph.

- Add edge:

Select an edge from the dropdown list to add between two existing edges.

- Delete edge:

Select an edge from the dropdown list to delete an existing edge.

- **Downloading/checking your answer**

If your instructor has set the question for submission/testing, click on the “Download” button to download a text file with a representation of your answer graph. Upload/submit this to the instructor for marking.

If your instructor has set the question for practice, you can click the “Submit” button to check your answer in the Graph Generator.