

2020

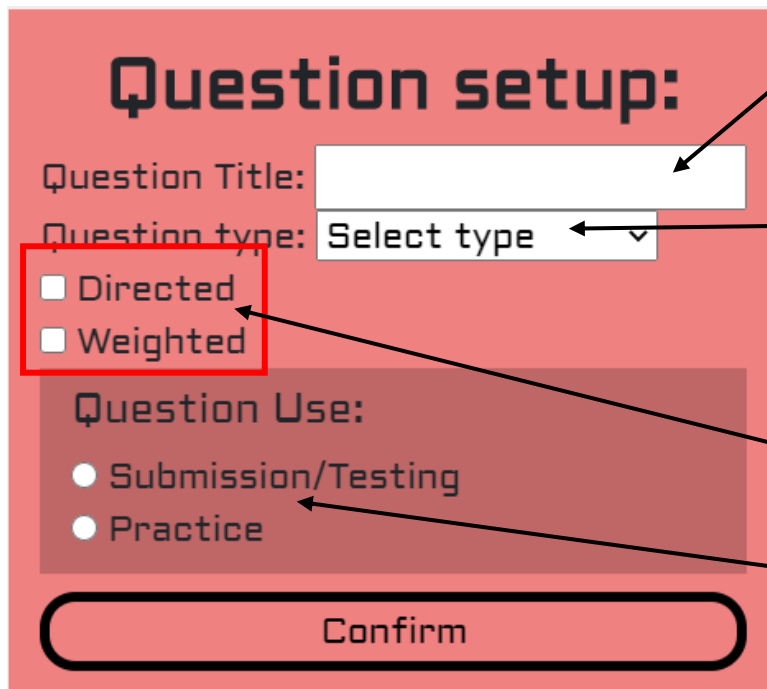
GraphGenerator

LECTURER MANUAL

UNIVERSITY OF THE WITWATERSRAND

- Creating a question

- Question setup



The 'Question setup' form is a red rectangular box with a white title 'Question setup:'. It contains several input fields and buttons. At the top is a text input for 'Question Title:'. Below it is a dropdown menu for 'Question type:' with 'Select type' as the selected option. Underneath are two checkboxes: 'Directed' and 'Weighted', both of which are highlighted with a red rectangular border. Below the checkboxes is a section titled 'Question Use:' containing two radio buttons: 'Submission/Testing' and 'Practice'. At the bottom of the form is a large, rounded button labeled 'Confirm'.

Insert title of the question. This will be included in the title of the downloaded PDF/text file.

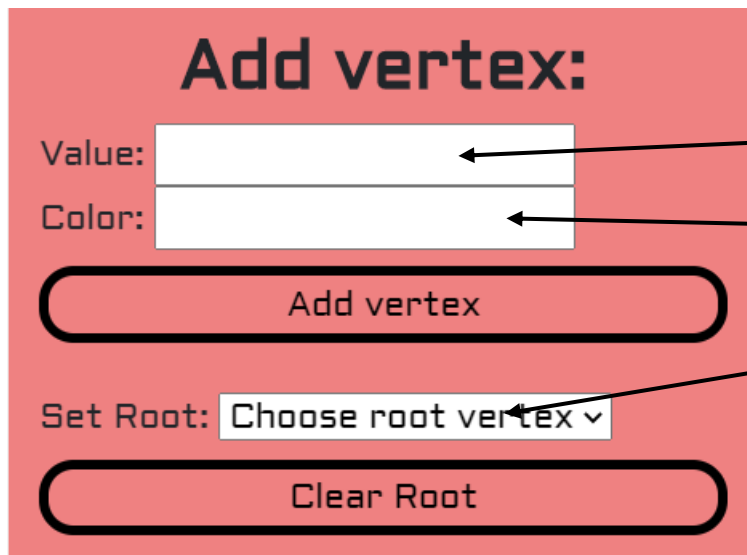
Select the question type from the dropdown box. There are pre-set question types supported by the marker, as well as an option for unseen algorithms.

Here you can select whether the graph will be directed and/or weighted.

Submission/Testing use means that the student will not be able to use the marker to check their work, only download their graph for submission.

Practice use will allow the student to check their work with the marker (for pre-set question types).

- Creating the graph



The 'Add vertex' form is a red rectangular box with a white title 'Add vertex:'. It contains two input fields: 'Value:' and 'Color:'. Below these is a large, rounded button labeled 'Add vertex'. Underneath the button is a dropdown menu for 'Set Root:' with 'Choose root vertex' as the selected option. At the bottom of the form is another large, rounded button labeled 'Clear Root'.

The value or "name" of the vertex to be added.

The colour of the vertex to be added (for graph colouring question types).

Select a root node/vertex from the dropdown menu of vertices already created, for questions that require it.

Edit vertex:

Vertex:

Value:

Color:

Distance:

Choose the vertex to edit from a dropdown list of existing vertices.

New value/name for the vertex

New colour for the vertex (graph colouring question type)

Distance (for minimum-weighted spanning tree question type)

Delete vertex:

Vertex:

Choose vertex to delete from dropdown list of existing vertices

Add edge:

Vertex 1:

Vertex 2:

Edge weight:

Update edge:

Edge:

Weight:

Delete edge:

Edge:

Choose two vertices to add an edge between them

Choose the weight of the edge, for weighted graphs

Select an edge to edit from the dropdown list of existing edges

Update the weight of the edge, for weighted graphs

Choose an edge to delete from the dropdown list of existing edges

Click -Create- to download the text file of the created question for student use, as well as a PNG image of the final created question graph