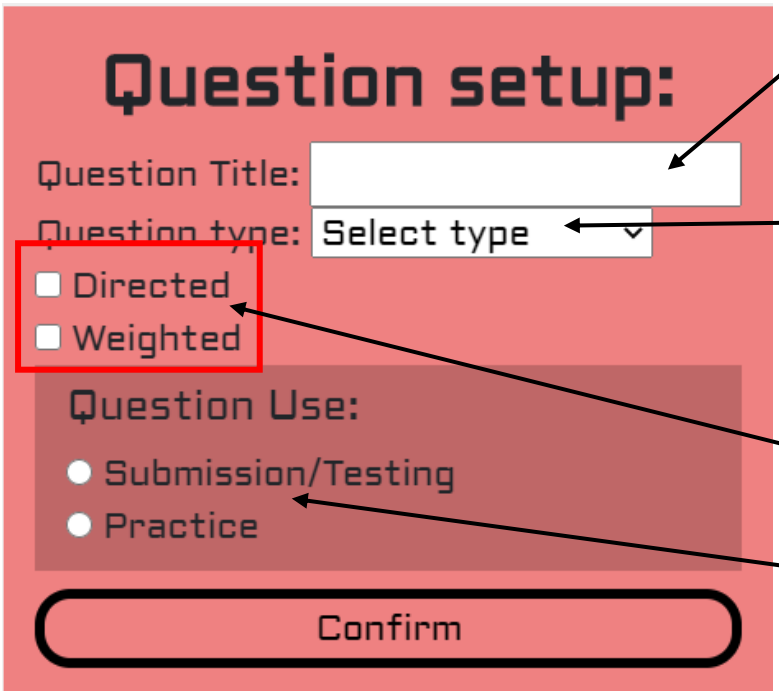
2020

GraphGenerator

LECTURER MANUAL

UNIVERSITY OF THE WITWATERSRAND

- Creating a question
  - Question setup



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

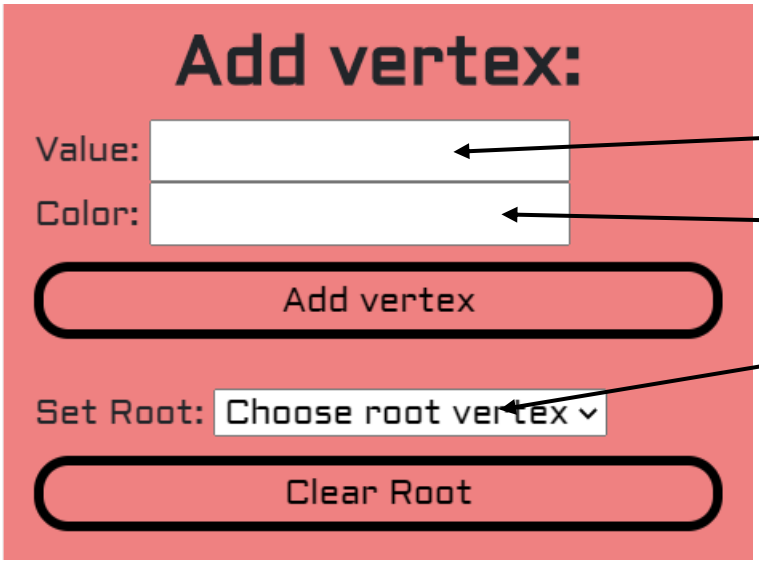
Select the question type from the dropdown box. There are pre-set question types supported by the marker, as well as an option for unseen algorithms.

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).

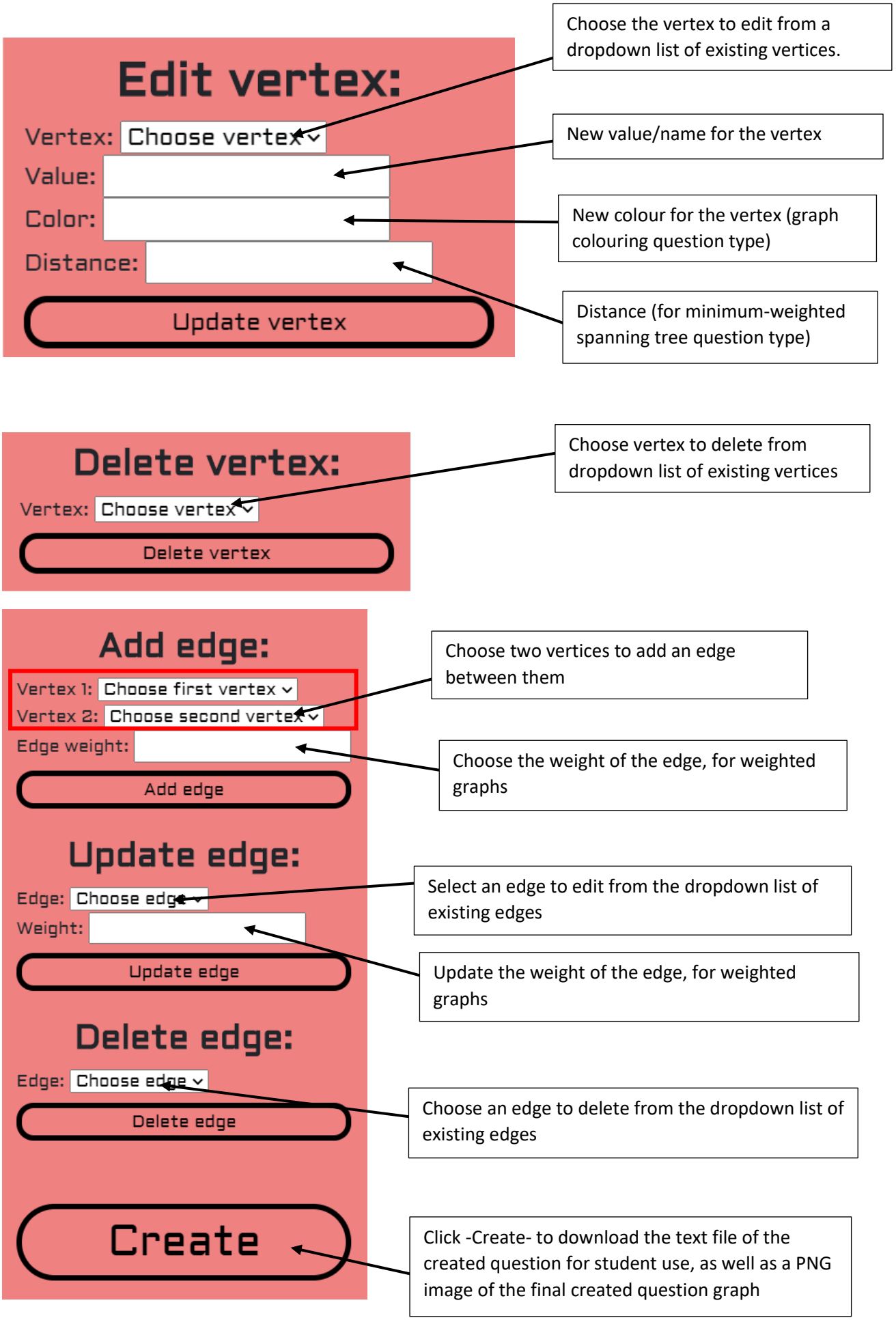
  - Creating the graph



The 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: Choose vertex
Value:
Color:
Distance:
Update vertex
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
Delete vertex
Choose vertex to delete from dropdown list of existing vertices
Add edge:
Vertex 1: Choose first vertex
Vertex 2: Choose second vertex
Edge weight:
Add edge
Choose two vertices to add an edge between them
Choose the weight of the edge, for weighted graphs
Update edge:
Edge: Choose edge
Weight:
Update edge
Select an edge to edit from the dropdown list of existing edges
Update the weight of the edge, for weighted graphs
Delete edge:
Edge: Choose edge
Delete edge
Choose an edge to delete from the dropdown list of existing edges
Create
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