David Hamlin

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Cycle

1. The main data structure used here is a Graph, but a stack is also used to help test to see if the graph has a cycle
2. The purpose of the graph here is to go through the graph and see if the graph has a cycle.
3. The main function creates a graph from an input, and calls the Boolean hasCycle, which determines if the graph has a cycle or not.
4. Other classes used are Stack and In.
5. Stack is used to store points on the graph during the logic in depth first search and hasParallelEdges, and In is used to send the input into a graph.

Bipartite

1. The underlying data structure used here is a graph, with a stack being used in several methods as well
2. The purpose of the graph is to go through a generated graph to see if the graph is bipartite or whether the graph has an odd length cycle.
3. The main function is creating a random undirected graph with an input of number of vertices on the left side, number of vertices on the right side, number of edges, and number of random edges. After the graph is generated, it is calling bipartite to determine if the graph is bipartite.
4. Other classes used in this are Stack, GraphGenerator, StdRandom, and StdOut. Other classes used in GraphGenerator are Bag, Set, MinPQ, and StdIn.
5. GraphGenerator is used to generate a graph from the given input. StdRandom generates random numbers, stdIn and stdOut deal with the input and output for the program, and MinPQ is a priority queue that holds the keys.