Assignment 2 Written Answers

Question 7 What is a hashtable?

A hashtable is a type of dictionary in Java. It has key value pairs. Each key has one value, you can have many pairs. The key can be something like an integer or a string, and the value can be any type of object like a string or an array, etc. Hashtables are great because when you get the value from them, you pass the key. It saves you from remembering the keys.

For example instead of having 2 arrays
["One", "Two", "Three"] and [1,2,3]
you can have
{"Four" : 4, "Six" : 6, "Twenty Nine" : 29}

See class BuildingDirectory.java for an example of using hashtables for a building directory.

Question 9 What is enumeration in Java?

Enumeration is an interface in Java to interact with structures like hashtables. You use enumeration to iterate through a hashtable instead of a for each loop. Enumeration uses a *next element* function and a *has more elements* function to help you iterate through.

See class BuildingDirectory.java lines 44 to 56 for an example of iterating through a hashtable with enumeration.