What you know coming into this assignment:
  ● How to use Mininet
  ● How to create a simple module in Floodlight
  ● Knowledge about packet-in and how to create flowmod events

What this assignment focuses on:
  ● Creating FlowMod Events
  ● Using the Flood Actions
  ● Using the PacketOut Actions

Background knowledge required (Please consult a networking textbook):
  ● Hub
  ● Learning Switch
  ● Hashtables in java

In this assignment you will practice what we learned in the tutorial by converting a hub into a learning switch.
  ● Step 1: Check out the hub class here net.floodlightcontroller.hub;
    ○ Pseudo code for a HUB:
      ■ Get a packet (line 68)
      ■ Make a packetout action (line 69-78)
      ■ Send the action to the switch (line 90-94)
  ● Step 2: Convert the hub into a learning switch
    ○ Pseudo code for a learning switch
      ■ Get a packet
      ■ Record the source_port (also called in-port) of the packet in a table.
        e.g. hashtable[src_mac] = pkt.inport
      ■ if the destination mac is in a table e.g. hashtable.contains(dst_mac)
        ● make a packetout action
        ● set the outport to the inport in the table e.g. setPort(hashtable[dst_mac])
        ● Send the packetout action to the switch
    ■ else
    ● Make a packetout action
    ● Set the port to flood
    ● Send the packetout action to the switch

My Psuedo-code isn't a real language.
Note: hashtable is a hash table
Note: hashtable.contains(key) checks to see if the hashtable contains the key
Note: hashtable[key] return the value for the given key

You should turn in:
  ● Your code! The Module should be called Hub
  ● Please do not cheat. Please see the TA if you have questions.