**Project2Task2Client**

import java.net.\*;  
import java.io.\*;  
import java.util.Scanner;  
// Name: Leo Lin  
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public class AddingClientUDP{  
 static DatagramSocket *aSocket* = null;  
 static int *serverPort*;  
 static InetAddress *aHost*;  
 public static void main(String args[]){  
 // Showing that the client UDP is running  
 Scanner readInput = new Scanner(System.*in*);  
 System.*out*.println("The client is running.");  
 // get the port number from the client  
 System.*out*.println("Please enter server port:");  
 *serverPort* = Integer.*parseInt*(readInput.nextLine());  
 try {  
 // collecting IP address  
 *aHost* = InetAddress.*getByName*("localhost");  
 *aSocket* = new DatagramSocket();  
 }catch (SocketException e) {System.*out*.println("Socket: " + e.getMessage());  
 }catch (IOException e){System.*out*.println("IO: " + e.getMessage());  
 }  
 String s;  
 System.*out*.println();  
 do{  
 s = readInput.nextLine();  
 // If the client does not input "halt!" initiate the add function  
 if(!s.equals("halt!")){  
 int result = *add*(Integer.*parseInt*(s));  
 System.*out*.println("The server returned " + result +".");  
 }  
 }while(!s.equals("halt!"));  
  
 System.*out*.println("Client side quitting.");  
 if(*aSocket* != null) *aSocket*.close();  
  
  
 }  
  
 //This function takes a integer from the user, pass it to the server, and return the respond of the server  
 public static int add(int i){  
 String replyString = null;  
 try {  
 byte [] m = String.*valueOf*(i).getBytes();  
 DatagramPacket request = new DatagramPacket(m, m.length, *aHost*, *serverPort*);  
 // send the request  
 *aSocket*.send(request);  
 byte[] buffer = new byte[1000];  
 DatagramPacket reply = new DatagramPacket(buffer, buffer.length);  
 // receive the reply from the server side and print it out.  
 *aSocket*.receive(reply);  
 replyString = new String(reply.getData()).substring(0, reply.getLength());  
 // If replyString is "halt!" break the while loop  
 }catch (SocketException e) {System.*out*.println("Socket: " + e.getMessage());  
 }catch (IOException e){System.*out*.println("IO: " + e.getMessage());  
 }  
 return Integer.*parseInt*(replyString);  
 }  
}