**CODE 16-feb <start and exit implemented>**

import java.io.\*;

import java.net.\*;

import java.sql.\*;

class TCPServer {

public static void main(String argv[]) throws Exception

{

String clientSentence;

String capitalizedSentence;

int num=0,sum=0;

//for DB connection

Connection conn = null;

String url = "jdbc:mysql://192.168.18.57:3306/";

String dbName = "project";

String driver = "com.mysql.jdbc.Driver";

String userName = "root";

String password = "vnitnagpur";

// Create “welcoming” socket using port 6789

ServerSocket welcomeSocket = new ServerSocket(4444);

System.out.println("Server Ready for Connection");

// While loop to handle arbitrary sequence of clients making requests

while(true) {

// Waits for some client to connect and creates new socket for connection

Socket connectionSocket = welcomeSocket.accept();

System.out.println("Client Made Connection");

// Create (buffered) input stream attached to connection socket

BufferedReader inFromClient = new BufferedReader(new InputStreamReader(connectionSocket.getInputStream()));

// Create output stream attached to connection socket

DataOutputStream outToClient = new DataOutputStream(connectionSocket.getOutputStream());

// Read input line from socket

clientSentence = inFromClient.readLine();

System.out.println("client got "+clientSentence);

String delims = " ";

String[] tokens = clientSentence.split(delims);

if((tokens[1].equals("START"))||(tokens[1].equals("EXIT")))

num =0;

else

num=Integer.parseInt(tokens[1]);

//sum = sum+num;

try

{

System.out.println("---------------------");

Class.forName(driver).newInstance();

conn = DriverManager.getConnection(url+dbName,userName,password);

System.out.println("Connected to the database");

String sql1 = "SELECT name FROM user ";

PreparedStatement psna = conn.prepareStatement(sql1);

ResultSet rs = psna.executeQuery();

boolean flag=false;

while (rs.next()) {

String sru = rs.getString(1);

if(sru.equals(tokens[0]))

flag=true;

}

if(tokens[1].equals("EXIT"))

{

String sum\_v = "DELETE From user WHERE name=?";

PreparedStatement psval = conn.prepareStatement(sum\_v);

psval.setString(1,tokens[0]);

psval.executeUpdate();

}

else if (flag)

{

System.out.println("into update function");int y=0;

String sum\_v = "SELECT age From user WHERE name=?";

PreparedStatement psval = conn.prepareStatement(sum\_v);

psval.setString(1,tokens[0]);

ResultSet valu= psval.executeQuery();

while (valu.next())

{

y= valu.getInt(1);

}

if(tokens[1].equals("START"))

y = 0-num;

sum=y+num;

String sql = "UPDATE user SET age=? WHERE name=?";

PreparedStatement ps = conn.prepareStatement(sql);

ps.setInt(1,sum);

ps.setString(2,tokens[0]);

ps.executeUpdate();

System.out.println("updated");

}

else

{

//insert into db

System.out.println("inserting func");

sum=num;

String insertTableSQL = "INSERT INTO user (name, age) VALUES (?,?)";

PreparedStatement insps= conn.prepareStatement(insertTableSQL);

insps.setString(1, tokens[0]);

if (!tokens[1].equals("START"))

insps.setInt(2,sum);

else if(tokens[1].equals("START"))

insps.setInt(2,0);

else

{

insps.setInt(2,0);

System.out.println("Please input correct token");

}

insps.executeUpdate();

System.out.println("inserted");

}

conn.close();

}

catch (Exception e)

{

e.printStackTrace();

}

System.out.println("Client sent: " + num);

capitalizedSentence = new Integer(sum).toString();

System.out.println(tokens[0]);

// Write output line to socket

outToClient.writeBytes(capitalizedSentence);

connectionSocket.close();

} // end while; loop back to accept a new client connection

} // end main

} // end class

**code as of 24th feb**

import java.io.\*;

import java.net.\*;

import java.sql.\*;

class TCPServer {

public static void main(String argv[]) throws Exception

{

String clientSentence;

String capitalizedSentence;

int num=0,sum=0;

//for DB connection

Connection conn = null;

String url = "jdbc:mysql://192.168.18.74:3306/";

String dbName = "project";

String driver = "com.mysql.jdbc.Driver";

String userName = "root";

String password = "vnitnagpur";

// Create “welcoming” socket using port 6789

ServerSocket welcomeSocket = new ServerSocket(4444);

System.out.println("Server Ready for Connection");

// While loop to handle arbitrary sequence of clients making requests

while(true) {

// Waits for some client to connect and creates new socket for connection

Socket connectionSocket = welcomeSocket.accept();

System.out.println("Client Made Connection");

// Create (buffered) input stream attached to connection socket

BufferedReader inFromClient = new BufferedReader(new InputStreamReader(connectionSocket.getInputStream()));

// Create output stream attached to connection socket

DataOutputStream outToClient = new DataOutputStream(connectionSocket.getOutputStream());

// Read input line from socket

clientSentence = inFromClient.readLine();

System.out.println("client got "+clientSentence);

String delims = " ";

String[] tokens = clientSentence.split(delims);

num=Integer.parseInt(tokens[1]);

//sum = sum+num;

try

{

System.out.println("---------------------");

Class.forName(driver).newInstance();

conn = DriverManager.getConnection(url+dbName,userName,password);

System.out.println("Connected to the database");

String sql1 = "SELECT name FROM user ";

PreparedStatement psna = conn.prepareStatement(sql1);

ResultSet rs = psna.executeQuery();

boolean flag=false;

while (rs.next()) {

String sru = rs.getString(1);

if(sru.equals(tokens[0]))

flag=true;

}

if (flag)

{

System.out.println("into update function");int y=0;

String sum\_v = "SELECT age From user WHERE name=?";

PreparedStatement psval = conn.prepareStatement(sum\_v);

psval.setString(1,tokens[0]);

ResultSet valu= psval.executeQuery();

while (valu.next())

{

y= valu.getInt(1);

}

sum=y+num;

String sql = "UPDATE user SET age=? WHERE name=?";

PreparedStatement ps = conn.prepareStatement(sql);

ps.setInt(1,sum);

ps.setString(2,tokens[0]);

ps.executeUpdate();

System.out.println("updated");

}

else

{

//insert into db

System.out.println("inserting func");

sum=num;

String insertTableSQL = "INSERT INTO user (name, age) VALUES (?,?)";

PreparedStatement insps= conn.prepareStatement(insertTableSQL);

insps.setString(1, tokens[0]);

insps.setInt(2,sum);

insps.executeUpdate();

System.out.println("inserted");

}

conn.close();

}

catch (Exception e)

{

e.printStackTrace();

}

System.out.println("Client sent: " + num);

capitalizedSentence = new Integer(sum).toString();

System.out.println(tokens[0]);

// Write output line to socket

outToClient.writeBytes(capitalizedSentence);

connectionSocket.close();

} // end while; loop back to accept a new client connection

} // end main

} // end class

**-----------------------------------------------------------------------------**

**slave server code V3.0 (updating entries to database)**

import java.io.\*;

import java.net.\*;

import java.sql.\*;

class TCPServer {

public static void main(String argv[]) throws Exception

{

String clientSentence;

String capitalizedSentence;

int num=0,sum=0;

//for DB connection

Connection conn = null;

String url = "jdbc:mysql://192.168.18.63:3306/";

String dbName = "project";

String driver = "com.mysql.jdbc.Driver";

String userName = "root";

String password = "vnitnagpur";

// Create “welcoming” socket using port 6789

ServerSocket welcomeSocket = new ServerSocket(4444);

System.out.println("Server Ready for Connection");

// While loop to handle arbitrary sequence of clients making requests

while(true) {

// Waits for some client to connect and creates new socket for connection

Socket connectionSocket = welcomeSocket.accept();

System.out.println("Client Made Connection");

// Create (buffered) input stream attached to connection socket

BufferedReader inFromClient = new BufferedReader(new InputStreamReader(connectionSocket.getInputStream()));

// Create output stream attached to connection socket

DataOutputStream outToClient = new DataOutputStream(connectionSocket.getOutputStream());

// Read input line from socket

clientSentence = inFromClient.readLine();

String delims = " ";

String[] tokens = clientSentence.split(delims);

num=Integer.parseInt(tokens[1]);

sum = sum+num;

//\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*connection to database\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*8

System.out.println("Inserting into database");

try {

Class.forName(driver).newInstance();

conn = DriverManager.getConnection(url+dbName,userName,password);

// System.out.println("Connected to the database");

String sql = "UPDATE user SET age=? WHERE name=?";

PreparedStatement ps = conn.prepareStatement(sql);

ps.setInt(1,sum);

ps.setString(2, "yadav");

ps.executeUpdate();

System.out.println("Entry updated");

conn.close();

// System.out.println("Disconnected from database");

} catch (Exception e) {

e.printStackTrace();

}

//\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*8

System.out.println("Client sent: " + num);

capitalizedSentence = new Integer(sum).toString();

System.out.println(tokens[0]);

// Write output line to socket

outToClient.writeBytes(capitalizedSentence);

connectionSocket.close();

} // end while; loop back to accept a new client connection

} // end main

} // end class

**slave server code V2.0 (updating entries to database)**

import java.io.\*;

import java.net.\*;

import java.sql.\*;

class TCPServer {

public static void main(String argv[]) throws Exception

{

String clientSentence;

String capitalizedSentence;

int num=0,sum=0;

//for DB connection

Connection conn = null;

String url = "jdbc:mysql://192.168.18.63:3306/";

String dbName = "project";

String driver = "com.mysql.jdbc.Driver";

String userName = "root";

String password = "vnitnagpur";

// Create “welcoming” socket using port 6789

ServerSocket welcomeSocket = new ServerSocket(4444);

System.out.println("Server Ready for Connection");

// While loop to handle arbitrary sequence of clients making requests

while(true) {

// Waits for some client to connect and creates new socket for connection

Socket connectionSocket = welcomeSocket.accept();

System.out.println("Client Made Connection");

// Create (buffered) input stream attached to connection socket

BufferedReader inFromClient = new BufferedReader(new InputStreamReader(connectionSocket.getInputStream()));

// Create output stream attached to connection socket

DataOutputStream outToClient = new DataOutputStream(connectionSocket.getOutputStream());

// Read input line from socket

clientSentence = inFromClient.readLine();

num=Integer.parseInt(clientSentence);

sum = sum+num;

//\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*connection to database\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*8

System.out.println("Inserting into database");

try {

Class.forName(driver).newInstance();

conn = DriverManager.getConnection(url+dbName,userName,password);

// System.out.println("Connected to the database");

String sql = "UPDATE user SET age=? WHERE name=?";

PreparedStatement ps = conn.prepareStatement(sql);

ps.setInt(1,sum);

ps.setString(2, "yadav");

ps.executeUpdate();

System.out.println("Entry updated");

conn.close();

// System.out.println("Disconnected from database");

} catch (Exception e) {

e.printStackTrace();

}

//\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*8

System.out.println("Client sent: " + num);

capitalizedSentence = new Integer(sum).toString();

// Write output line to socket

outToClient.writeBytes(capitalizedSentence);

connectionSocket.close();

} // end while; loop back to accept a new client connection

} // end main

} // end class

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

**servercode-- version 1.0**

**################# adding numbers #######################**

import java.io.\*;

import java.net.\*;

class TCPServer {

public static void main(String argv[]) throws Exception

{

String clientSentence;

String capitalizedSentence;

int num=0,sum=0;

// Create “welcoming” socket using port 6789

ServerSocket welcomeSocket = new ServerSocket(4444);

System.out.println("Server Ready for Connection");

// While loop to handle arbitrary sequence of clients making requests

while(true) {

// Waits for some client to connect and creates new socket for connection

Socket connectionSocket = welcomeSocket.accept();

System.out.println("Client Made Connection");

// Create (buffered) input stream attached to connection socket

BufferedReader inFromClient = new BufferedReader(new InputStreamReader(connectionSocket.getInputStream()));

// Create output stream attached to connection socket

DataOutputStream outToClient = new DataOutputStream(connectionSocket.getOutputStream());

// Read input line from socket

clientSentence = inFromClient.readLine();

num=Integer.parseInt(clientSentence);

sum = sum+num;

System.out.println("Client sent: " + num);

capitalizedSentence = new Integer(sum).toString();

// Write output line to socket

outToClient.writeBytes(capitalizedSentence);

connectionSocket.close();

} // end while; loop back to accept a new client connection

} // end main

} // end class

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* older version \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

import java.io.\*;

import java.net.\*;

class TCPServer {

public static void main(String argv[]) throws Exception

{

String clientSentence;

String capitalizedSentence;

int num=0,sum=0;

// Create “welcoming” socket using port 6789

ServerSocket welcomeSocket = new ServerSocket(4444);

System.out.println("Server Ready for Connection");

// While loop to handle arbitrary sequence of clients making requests

while(true) {

// Waits for some client to connect and creates new socket for connection

Socket connectionSocket = welcomeSocket.accept();

System.out.println("Client Made Connection");

// Create (buffered) input stream attached to connection socket

BufferedReader inFromClient = new BufferedReader(new InputStreamReader(connectionSocket.getInputStream()));

// Create output stream attached to connection socket

DataOutputStream outToClient = new DataOutputStream(connectionSocket.getOutputStream());

// Read input line from socket

clientSentence = inFromClient.readLine();

num=Integer.parseInt(clientSentence);

sum = sum+num;

System.out.println("Client sent: " + num);

capitalizedSentence = new Integer(sum).toString();

// Write output line to socket

outToClient.writeBytes(capitalizedSentence);

connectionSocket.close();

} // end while; loop back to accept a new client connection

} // end main

} // end class

import java.io.\*;

import java.net.\*;

class TCPServer {

public static void main(String argv[]) throws Exception

{

String clientSentence;

String capitalizedSentence;

// Create “welcoming” socket using port 6789

ServerSocket welcomeSocket = new ServerSocket(4444);

System.out.println("Server Ready for Connection");

// While loop to handle arbitrary sequence of clients making requests

while(true) {

// Waits for some client to connect and creates new socket for connection

Socket connectionSocket = welcomeSocket.accept();

System.out.println("Client Made Connection");

// Create (buffered) input stream attached to connection socket

BufferedReader inFromClient = new BufferedReader(new InputStreamReader(connectionSocket.getInputStream()));

// Create output stream attached to connection socket

DataOutputStream outToClient = new DataOutputStream(connectionSocket.getOutputStream());

// Read input line from socket

clientSentence = inFromClient.readLine();

System.out.println("Client sent: " + clientSentence);

capitalizedSentence = clientSentence.toUpperCase() + '\n';

// Write output line to socket

///////////////////////////////////////////////////////////////////////////////////////////////////////

System.out.println("Forwarding the input");

// Create client socket with connection to server at port 6789

Socket clientSocket = new Socket("192.168.18.86", 4444);

// Create output stream attached to socket

DataOutputStream outToServer = new DataOutputStream(clientSocket.getOutputStream());

// Create (buffered) input stream attached to socket

BufferedReader inFromServer = new BufferedReader(new InputStreamReader(clientSocket.getInputStream()));

// Write line to server

outToServer.writeBytes(capitalizedSentence + '\n');

///////////////////////////////////////////////////////////////////////////////////////////////////////

outToClient.writeBytes(capitalizedSentence);

connectionSocket.close();

} // end while; loop back to accept a new client connection

} // end main

} // end class

//SERVER CODE

import java.io.\*;

import java.net.\*;

class TCPServer {

public static void main(String argv[]) throws Exception

{

String clientSentence;

String capitalizedSentence;

// Create “welcoming” socket using port 6789

ServerSocket welcomeSocket = new ServerSocket(4444);

System.out.println("Server Ready for Connection");

// While loop to handle arbitrary sequence of clients making requests

while(true) {

// Waits for some client to connect and creates new socket for connection

Socket connectionSocket = welcomeSocket.accept();

System.out.println("Client Made Connection");

// Create (buffered) input stream attached to connection socket

BufferedReader inFromClient = new BufferedReader(new InputStreamReader(connectionSocket.getInputStream()));

// Create output stream attached to connection socket

DataOutputStream outToClient = new DataOutputStream(connectionSocket.getOutputStream());

// Read input line from socket

clientSentence = inFromClient.readLine();

System.out.println("Client sent: " + clientSentence);

capitalizedSentence = clientSentence.toUpperCase() + '\n';

// Write output line to socket

outToClient.writeBytes(capitalizedSentence);

connectionSocket.close();

} // end while; loop back to accept a new client connection

} // end main

} // end class

CLIENT

import java.io.\*;

import java.net.\*;

class TCPClient {

public static void main(String argv[]) throws Exception

{

String sentence;

String modifiedSentence;

// Create (buffered) input stream using standard input

BufferedReader inFromUser = new BufferedReader(

new InputStreamReader(System.in));

System.out.println("Client ready for input");

// Create client socket with connection to server at port 6789

Socket clientSocket = new Socket("192.168.18.141", 4444);

// Create output stream attached to socket

DataOutputStream outToServer = new DataOutputStream(clientSocket.getOutputStream());

// Create (buffered) input stream attached to socket

BufferedReader inFromServer = new BufferedReader(new InputStreamReader(clientSocket.getInputStream()));

// Write line to server

outToServer.writeBytes(sentence + '\n');

// Read line from server

modifiedSentence = inFromServer.readLine();

System.out.println("FROM SERVER: " + modifiedSentence);

clientSocket.close();

} // end main

} // end class