# **CS** Capstone Design

# **Technical Demo Grading Sheet** (50 pts)



#### **TEAM: Cloud Connect**

**Overview:** The main purpose of the "Technical Demos" is to very clearly communicate the extent to which the team has identified key challenges in the project, and has proven solutions to those challenges. Grading is based on how complete/accurate the list of challenges is, , and how convincingly and completely the given demos cover the given challenges.

This template is fleshed out by the team, approved by CS mentor, and brought to demo as a grading sheet.

### Risky technical challenges

Based on our requirements acquisition work and current understanding of the problem and envisioned solution, the following are the key technical challenges that we will need to overcome in implementing our solution:

#### C1: Communication

Our Application will be able to bot acc

#### C2: Possible firewall blockage by NAU network

NAU does not allow us to be running a open socket server for security purposes, which makes it challenging for us to show what we need to show.

#### C3: Server may crash

Since we are running a server at one of the team members house where there will not be anyone to make sure server stays on, we could run into possibility of server going to timeout. Also, if local ISP sees any open server for a while they can shut the port which could cause us problem.

#### **Challenges covered by demos:**

In this section, we outline the demonstrations we have prepared, and exactly which of the challenge(s) each one of them proves a solution to.

#### **Demonstration 1: TCP Communication**

<u>Challenges addressed:</u> Client server may go on timeout and crashes.

#### Flight Plan:

- 1. First, we will have open server running on one of the group members computer at their home, which is going to act as "SkyTouch Database" server
- 2. One of the group member will act as client(Interface Device such as Point of Sale). They will send data in.
- 3. Once Server receives data, it will let client know that data is receive

#### Evaluation:

- ✓ Convincingly demo'd each of listed challenges?
- ✓ Other evaluative comments:

#### **Demonstration 2: Multi-Threading Client Communication**

<u>Challenges addressed:</u> Have multiple clients connect to the Server IP and communicate with it.

#### Flight Plan: Step by step overview of demo

- 1. First We must setup the Server in order for anyone accessing to reach it.
- 2. Then we must set up clients that want to communicate with the server with the correct IP and port number.
- 3. Finally while the server runs the clients can connect to it and communicate with the server. The server will get messages in the order that they were sent by the clients.
- 4. We will have multiple client on same server act as "interface device" to show that we can communicate multiple device at once.

#### Evaluation:

- ✓ Convincingly demo'd each of listed challenges?
- ✓ Other evaluative comments:

## Other challenges recognized by not addressed by demo:

If there were challenges you listed earlier that were *not* covered by a demo, list here. This will hopefully be a short list...but better to be clear about where you are. If you have items here, you could list (if applicable) any pending plans to reduce these risks.

#### Pending Plans:

- Send XML files or Set of data to server, compare it with SkyTouch Database. Send appropriate message back to the client