Information Technology Analysis

Name of student

Name of professor

University

Course

Date:

**Task 1:**

**Infrastructural requirements:**

Establishment of a proper office environment requires the adoption of correct technologies in place. Some of these technologies range from:

1. Software
2. Hardware
3. Networking
4. People resources

The systems analysts in this case is responsible for the documentation and the analysis of the correct tools and technologies that will help meet the software requirements. For the new office installation, the following are some of the constraining factors that will be adopted at arriving to the problem that Optinet is currently facing in its Optinet office:

1. **Cost:** Depending on the current market price of the items, cost shall determine what items need to be purchased. These could range from computers, labor costs and the government taxations.
2. **Level of staff:** Highly skilled staff require more advanced tools and technologies that will help them drive the activities needed for their job.

**Hardware requirements:**

The following hardware materials are needed:

1. Computer monitors
2. Central processing Units
3. Mice
4. Keyboards
5. Laptops
6. Routers
7. LAN cables
8. Switchboards

**Software requirements:**

The following software materials are needed:

1. Antivirus
2. Microsoft Office
3. Operating systems
4. Business applications software

**Task 3**

**Client application:**

import socket

import sys

if \_\_name\_\_ == "\_\_main\_\_":

    if len(sys.argv) < 3:

        print("Usage: {} <server IP address> <port>".format(sys.argv[0]))

        sys.exit(1)

    client = socket.socket(socket.AF\_INET, socket.SOCK\_STREAM)

    client.connect((sys.argv[1], int(sys.argv[2])))

    message = client.recv(1024)

    print(message)

**Server application:**

import os

import socket

PORT = int(os.environ.get("PORT", "8081"))

if \_\_name\_\_ == "\_\_main\_\_":

    server = socket.socket()

    server.bind(("", PORT))

    server.listen(5)

    print("Server listening on port: {}".format(PORT))

    counter = 0

    while True:

        client, addr = server.accept()

        print("Accepted connection from: {}".format(addr))

        counter += 1

        client.send("Hello. You are connection number {}.".format(counter))

        client.close()