APPENDIX 1

SCREEN SHOTS OF PATIENT MONITORING SYSTEM

SIMULATION SETUP

Figure A1.1 System details

Figure A1.2 Agent Platform
Figure A1.3 Updation Agent

```java
public void action() {
    // Create a message in order to send it to the chosen agent
    final ACLMessage msg = new ACLMessage(ACLMessage.INFORM);
    msg.setSender(this.myAgent.getAID());
    System.out.println(this.myAgent.getAID().getName());

    // msg.setLanguage(MyOntology.LANGUAGE);
    // msg.setProtocol(MyOntology.PAXOS_PREPARE);
    // msg.addReceiver(new AID("Agent2", AID.ISLOCALNAME));
    System.out.println(this.myAgent.getAID());
    System.out.println("hi am m");
    System.out.println("hi am m");
    msg.addReceiver(new AID(PlatformDemo.RR, AID.ISLOCALNAME));
    msg.addReceiver(new AID("Agent1", AID.ISLOCALNAME));
    msg.addReceiver(new AID("Agent2", AID.ISLOCALNAME));
    msg.addReceiver(new AID("Agent3", AID.ISLOCALNAME));
    msg.setContent(((AgentSender)this.myagent).data.get(0));
    System.out.println(data.get(0) + " hi send");
    this.myagent.send(msg);
}
```

Figure A1.4 Updation Agent Setup

```java
import java.util.HashSet;
import java.util.List;
import java.util.Set;
import jade.core.AID;
import jade.core.Agent;
import jade.core.behaviours.SimpleBehaviour;
import jade.lang.acl.ACLMessage;

public class AgentSender extends Agent{
    protected List<String> data;
    /**
     * This method is automatically called when "agent".start()
     * Consider that Agent is launched for the first time.
     * 1 set the agent attributes
     * 2 add the behaviours
     */
    protected void setup(){
        super.setup();
    }
}
```
private static Runtime emptyPlatform(HashMap<String, Container> runtime) {
    Runtime rt = Runtime.getRuntime();
    // 1) create a platform (main container+DF+AMS)
    Profile profile = new ProfileImpl(hostname, 8888, null);
    System.out.println("Launching a main-container...");
    AgentContainer mainContainerRef = rt.createMainContainer(profile);
    // 2) create the containers
    containerList.putAll(createContainers(rt));
    // 3) create monitoring agents: rma agent, used to
    createMonitoringAgents(mainContainerRef);
    System.out.println("Platform ok");
    return rt;
}

/**
 * create the containers used to hold the agents
 * @param rt the reference to the main container
 */
EXPERIMENTAL SETUP

Figure A1.7 Heart Rate Sensor Type: HRM 2511

Figure A1.8 Sensor with GSM Modem connected with a PDA Device
Figure A1.9  Alert Message sends to Doctor’s Mobile by GSM Modem

Figure A1.10  Patient Registration System
Figure A1.11  Patients Registration details

Figure A1.12  Patient Heart Rate received by Updation Agent
Figure A1.13 Patient data received by Collection Agent

![Database Query Result](image1)

Figure A1.14 Patient Report view by Doctor

![Patient Report Interface](image2)
Figure A1.15  Patient Report

<table>
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<th>PATIENT NAME</th>
<th>DATE</th>
<th>HEART BEATS</th>
<th>TIME</th>
<th>STATUS</th>
</tr>
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<tbody>
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<td></td>
<td>99</td>
<td>01:00 PM</td>
<td>NORMAL</td>
</tr>
</tbody>
</table>

Figure A1.16  Heart Disease Prediction system –predicted the patient status as Normal