**Part(a):**

public LogMessage(String message)

{

int colon = message.indexOf(":");

machineId = message.substring(0,colon);

description = message.substring(colon + 1);

}

**Part(b):**

Public boolean containsWord(String keyword)

{

if (description.equals(keyword))

{

return true;

}

if (description.indexOf(keyword + " ") == 0)

{

return true;

}

if (description.indexOf(" " + keyword + " ") != -1)

{

return true;

}

if (description.length() > keyword.length())

{

if ((description.substring(description.length() -

keyword.length() - 1).equals(" " + keyword)))

{

return true;

}

}

return false;

}

**Part(c):**

public List<LogMessage> removeMessages(String keyword)

{

List<LogMessage> removals = new ArrayList<LogMessage>();

for(int i = 0; i < messageList.size(); i++)

{

if (messageList.get(i).containsWord(keyword))

{

removals.add(messageList.remove(i));

i--;

}

}

return removals;

}