(Scenario 2: Find my lost father)

**Use case 1 – User matching**

***Precondition:***

The user has registered for an account.

***Description:***

User in ‘descendants’ role can match with the user in ‘elder’ role, and user in ‘elder’ role can match with the user in ‘descendants’ role. Matching request must be handled by user himself.

***Post-condition:***

Both kinds of user can see the elder or descendants in relative list.

***Exception:***

The user name doesn’t exists, a message will show to inform this.

**Use case 2 – User status monitoring**

***Precondition:***

The elder has authorized the application to monitor his states of motion, and his phone keeps power on and with himself

***Description:***

The application will try to detect the states of motion of the user (walking, running, sitting, lying, felt down and so on) by monitor the device itself frequently, and send the statistic to server.

***Post-condition:***

The states of motion is recorded in server, and matched user can enquiry it.

***Exception:***

The elder user hasn’t sign in his account, application will give message to remind him to log in.

Mobile phone fails to get the states of motion, application will give message to let the user repair his device.

Application can’t connect to network, a message will be shown to remind the user check the network setting.

**Use case 3 – Getting location**

***Precondition:***

The elder has authorized the application to get his position, and his phone keeps power on and with himself.

***Description:***

If not required, the application will get the position of device (latitude and longitude) every 5 minutes and send the position to server. If the server send position request to mobile phone, application will get position and send it to server immediately.

***Post-condition:***

Position of the elder will be recorded in server and database, and matched descendants user can query it.

***Exception:***

The elder user hasn’t sign in his account, application will give message to remind him to log in.

Mobile phone fails to get the position, application will give message to let the user repair his device.

Application can’t connect to network, a message will be shown to remind the user check the network setting.

**Use case 4 – Finding elder’s position**

***Precondition:***

The descendant user is matched with elder user, and elder user has authorized the application to get position.

***Description:***

Descendant user can query the elder’s position by open the application and click the button ‘Get location’

***Post-condition:***

Position of elder is shown on the screen, and descendant user can track it.

***Exception:***

The elder hasn’t authorize the application to get position, a message will show to let user inform the elder to authorize the application.

User’s device cannot connect to network, a message will show to inform the user check the settings.

**Use case 5 – Send message**

***Precondition:***

Both elder and descendant user are matched with each other, and keep the login status and mobile phone power on.

***Description:***

Descendant user can send text or voice message to elder user. Descendant user should select the elder user first, then write the message, in the end click “Send” button. The application also can read the message’s content for the elder.

***Post-condition****:*

After the message is sent, elder user’s phone will keep ringing loudly until the message is read. The message will be shown on the screen, and after click it will disappear. The application can also read the content of the message for the elder.

***Exception:***

Network connection failure: a message will be shown to inform the user to check network setting.

**Use case 6 – One-button call**

***Precondition:***

The application is installed and elder’s account logged in.

***Description:***

The elder can press only one button to make a phone call to descendant, such press “Son”, then a phone call to his son will be made.

***Post-condition:***

A phone call to selected user is made.

***Exception:***

Network failure: a message will be shown on screen or read loudly to let the elder know.