**Start Time: \_\_\_\_\_\_\_\_\_\_ End Time: \_\_\_\_\_\_\_\_\_\_**

**Case Study 2: Personalised Emergency System**

**System Story:**

The aim of this system is to support a person, generally an older person, to remain living at home longer. Emergency systems typically have the following two features: (i) an emergency alarm: the older person can raise an alarm if he/she requires emergency attention by e.g. pushing a button on a pendant worn around his/her neck or wrist; and (ii) a wellbeing check: the older person informs a service provider that he/she is well, on a daily basis, via e.g. pushing a button on a base station.

If no indication of wellbeing is received during a specified period, the service provider initiates checks on the older person. The emergency system is installed in an older person’s home, and a service provider monitors data from the system. If the older person raises an alarm, the service provider contacts the person to ask if he/she requires help, or to check that the call is not a false alarm (accidental triggering of the alarm).

If the service provider fails to make contact, or makes contact but the older person is in need of help, the service provider calls a nominated relative or friend to provide assistance, and ultimately, emergency services (e.g. ambulance) is provided if none of the nominated contacts can attend.

For the wellbeing check, the older person is required to register their wellbeing each day, generally within a fixed period, e.g. 7am–11am. If the older person do not check in by the end of the period, the service provider calls the older person. In most cases, the older person has simply forgotten to press the button. If the older person cannot be reached, a similar process as for raising an emergency is initiated.

**Modelling Task:**

Try to model the requirements for the personalized emergency system (PES) as detailed as possible, following the AOM4STS methodology, starting from the goal model of the PES, followed by the domain model.

Feel free to ask us questions on modelling constraints.

Model the system requirements step-by-step following the system story. When modelling, interpret the requirements freely. There is no “right” or “expected” solution to which your models have to conform.