

Project Integration Technical Design

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Group 1

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procedure FALL_DETECTION(name)
   $\vec{v} \leftarrow \text{READ\_ACCELEROMETER}$ 
   $\text{angular\_v} \leftarrow \text{READ\_GYROSCOPE}$ 

  if  $|\vec{v}| \geq \text{threshold}$  and IN_LYING_POSE( $\text{angular\_v}$ ) then
     $\text{location} \leftarrow \text{GET\_LOCATION}$ 
     $\text{time} \leftarrow \text{GET\_TIME}$ 
     $\text{event\_type} \leftarrow \text{fall}$ 

    while no wireless connection do
      TRY_TO_CONNECT
      SLEEP ▷ non-blocking delay
    end while

     $\text{msg} \leftarrow \{\text{location}, \text{time}, \text{event\_type}\}$ 
    NOTIFY_THIRD_PARTY( $\text{msg}$ )
    INSERT_INTO_DATABASE( $\text{msg}$ )
  end if
end procedure

```

```

procedure APP_MAIN
  if logged in then
    PROMPT_FOR_CREDENTIALS
  end if

   $\vec{data} \leftarrow \text{FETCH\_DATA}$ 

  repeat
    if database updated then
       $\vec{data} \leftarrow \text{FETCH\_DATA}$ 
    end if

    for all  $row \in \vec{data}$  do
      RENDER( $row$ )
    end for
  until forever
end procedure

```