Features

1. Load saved pet on start-up – complete
   1. User has a choice to load the saved pet or to start a new one – complete
      1. If there is no saved pet, then a new one is started - complete
2. Display the statistics of the pet to the LCD – complete
3. The pet has all the required statistics – complete
   1. Development stage statistic - complete
   2. Happiness statistic - complete
   3. Fullness statistic - complete
   4. Age statistic – complete
4. Age up/grow pet function – complete
   1. Pet development increases from 0 to 1 automatically after 5 seconds – complete
   2. Other functions are only available after the pet has reached development 1 - complete
5. Feed pet function – complete
6. Play pet function – complete
7. The statistics will reduce automatically after set time periods – complete
   1. Happiness decreased by 1 every 7 seconds – complete
   2. Fullness decreased by 1 every 11 seconds – complete
      1. If fullness reaches 0 then happiness is set to 0 – complete
8. User can enter and leave a menu when a specific button is pressed – complete
   1. Save and exit function – complete
   2. Delete pet function – complete
   3. Start new pet function – complete

Additional Features

1. When in the menu the simulation is paused (i.e. none of the statistics will change while the user is in the menu), this makes the simulation more user friendly – complete
2. Changes to the statistics as a result of the user running functions are displayed on the LCD screen, this is to make it easier for the user to follow the simulation without getting confused. The statistic(s) changed are printed to the screen with the amount that they have been increased or decreased by – complete
   1. These changes are colour coded depending on the effect (i.e. green for good, red for bad, etc), again for improved usability – complete
3. Cleanliness statistic ranges from 0 to 3 (filthy, ok, good, clean) and will decrease by 1 every 20 seconds – complete
4. The clean pet function - complete
   1. if the cleanliness is less than 2 then cleanliness is reset to 3 and happiness is increased by 1 (if happiness is less than 2) - complete
   2. if the cleanliness is greater then or equal to 2 then cleanliness is reset to 3 but the happiness is decreased by 1 (if it is greater than 0) – complete
   3. if the cleanliness reaches 0 then happiness is also set to 0 - complete
5. Whenever a pet function (feed, play, clean) the timer responsible for that statistic decreasing will be reset to 0, this prevents the statistic changing again while the statistic changes are still being displayed - complete