# CSC 236 T04: CRC Cards and ADTs

## **This is a team assignment designed as an in-class activity.**

# **Member Roles**

#### **If you have only three people, also combine Recorder & Spokesperson**

#### **If you have five people, add a Process Analyst**

#### **Make up a team name which suits your team!**

|  |  |
| --- | --- |
| **Team Name** | **Jiggly Wigglies** |

|  |  |
| --- | --- |
| **Team Roles** | **Member Name** |
| **Facilitator:***.* | **Conner Bondurant** |
| **Recorder:** | **Tradd Schmidt** |
| **Spokesperson:** | **Basant Phuyal** |
| **Quality Control Officer:** | **Rusty Dotson** |

## **Directions for use:**

* To use this form effectively, sign into a Google account.
* Then under “File” choose “Make a Copy” in order to be able to edit.
* Share with all team members, but allow Recorder to do the recording.
* Each yellow box should be filled with an appropriate team response..

## **Basic program concept:**

Place a short but precise description of what your program will do here.

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| --- |
| **Creates a pet that plays with a toy and sleeps. The toy has a battery level that decreases as the pet plays with it. When the battery reaches zero, it will recharge. The pet’s energy decreases while it’s playing with the toy and must sleep to regenerate energy. The pet will sleep if either its energy reaches zero, or the battery dies on the toy. The player must continue to get the pet to play with the toy or else the pet will die.** |

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## **CRC Cards**

Put the CRC cards used in designing the virtual pet program below. You are welcome to copy the digital forms of the CRC card templates, but you can alternatively use tables and bullets to describe what they are (their properties and methods) if you prefer.

|  |  |
| --- | --- |
| **Class name: Pet** |  |
| **Class Data:** | **Class Collaborations (other classes):** |
| * Data: Happiness level * Data: energy | * Toy |
| **Class Methods:** | **Class Collaborations (other classes):** |
| * method: play\_with\_toy   + Increases pet's happiness, decreases energy, calls toy.drain\_battery() * Method: sleep(time)   + Increases energy by a set amount over time | * Toy |

|  |  |
| --- | --- |
| **Class name:** | **Toy** |
| **Class Data:** | **Class Collaborations (other classes):** |
| * Data: battery\_power |  |
| **Class Methods:** | **Class Collaborations (other classes):** |
| * method: drain\_battery(charge)   + Decreases battery power by charge amount * Method: charge\_battery   + Increases battery power by charge amount | * Pet |