CSC300

Module 1: Practical Design Exercise

Using Descriptive narrative to identify Use Cases and create simple class diagrams.

1. Working in a team consider a simple microwave oven commonly seen in a kitchen today. Write a detailed narrative of how the device is used .
2. Identify what you think are the principal use cases for the microwave, by extracting them from the narrative looking at the verbs and noun-verbs combinations in that description.
3. Brainstorm over your narrative to identify the nouns and verbs and adjectives to create:
   1. A list of classes that you think are important and play a role in the device,
   2. The objects that ‘work’ or collaborate together or use other objects to do their work.
   3. Write the objects, and their responsibilities on a set of cards as shown the example below
   4. Then write down on the same cards the other classes on the right that they original objects collaborate with (work with) to get those responsibilities fulfilled.

At the end of this exercise you should have a series of cards filled in and a narrative description.

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| A close-up of a paper  Description automatically generated |  |

Online examples

https://pages.cpsc.ucalgary.ca/~eberly/Courses/CPSC333/Lectures/Design/CRC\_modeling\_example.html

https://www.lucidchart.com/pages/templates/crc-cards-example

https://agilemodeling.com/artifacts/crcmodel.htm

https://blog.teachcomputing.org/using-crc-cards-to-improve-programming-design/

<https://www.visual-paradigm.com/support/documents/vpuserguide/94/1289/6518_drawingcrcca.html>

https://www.cs.cmu.edu/~aldrich/courses/413/slides/37-crc-design.pdf