## **UML** Diagram

## Multipurpose Desktop

## A "mini desktop":

- Mini desktop class
  - Display displays available applications
  - Select Selects between applications and gives confirmation

## Applications:

- Tic tac toe class
  - The typical 3x3 game (not very interesting)
    - Display
    - Rules Returns a summary of the game
    - PlaceO/X places an X or an O based on player input
    - Check3 checks for 3 consecutive Xs or Os
    - 2 player mode
    - single player mode
      - An algorithm will be generated using the above methods
      - Al move Randomly places an O in proximity to an X.
  - Ultimate tic tac toe (A 9x9 game with restrictions on moves)
    - Display
    - Rules Returns a summary of the game
    - PlaceO/X places an X or an O based on player input
    - Check3 checks for 3 consecutive Xs or Os
    - NextMove determines the 3x3 square you move to based on previous move of your opponent
    - Available checks whether a 3x3 square in the 9x9 board is full
    - 2 player mode
    - Potentially a single player mode if we have time
- Text editor
- Calculator class
  - Create a calculator that can perform basic operations (+, -, \*, /)
  - Can factor a given integer
  - Can give you the nth special number (i.e. Fibonacci)
- Letter Crush class
  - A variation of Candy Crush, except with letters
  - Check3 checks for 3 consecutive letters
  - Swap swap two adjacent letters iff they made a 3 in a row
  - o Redo If there are no swaps that would obtain a 3 in a row, randomize the field

\*All applications have the ability to go back to the home screen