Duck Dating App
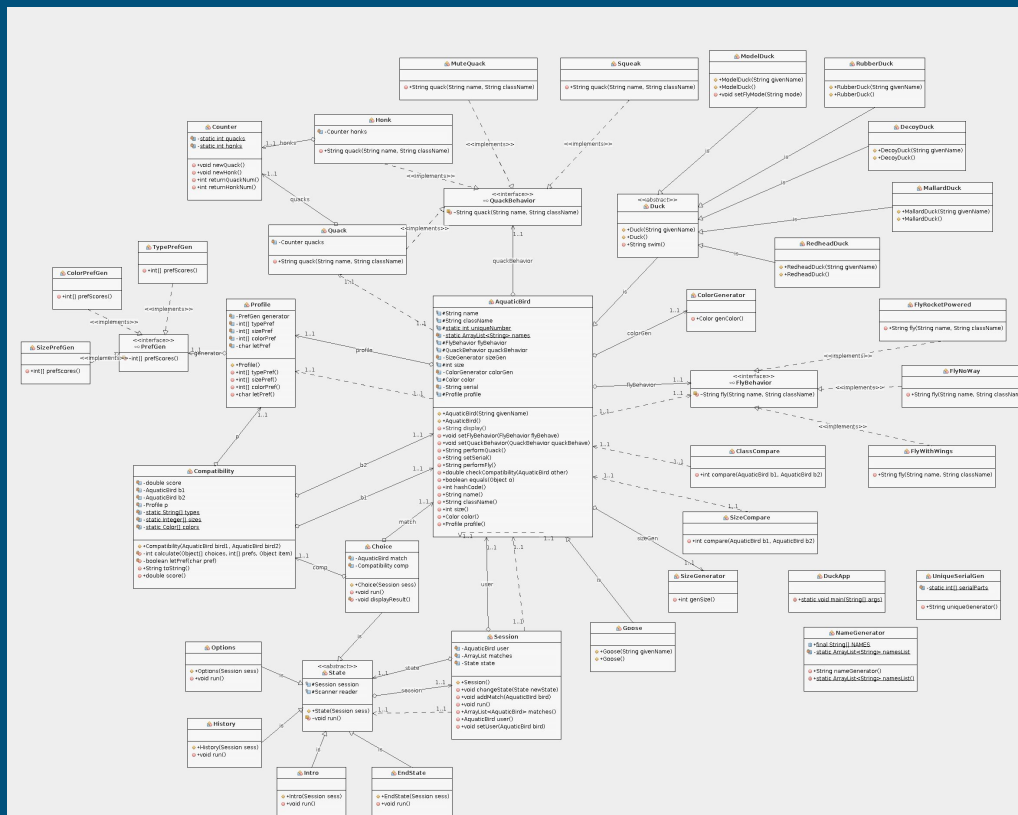
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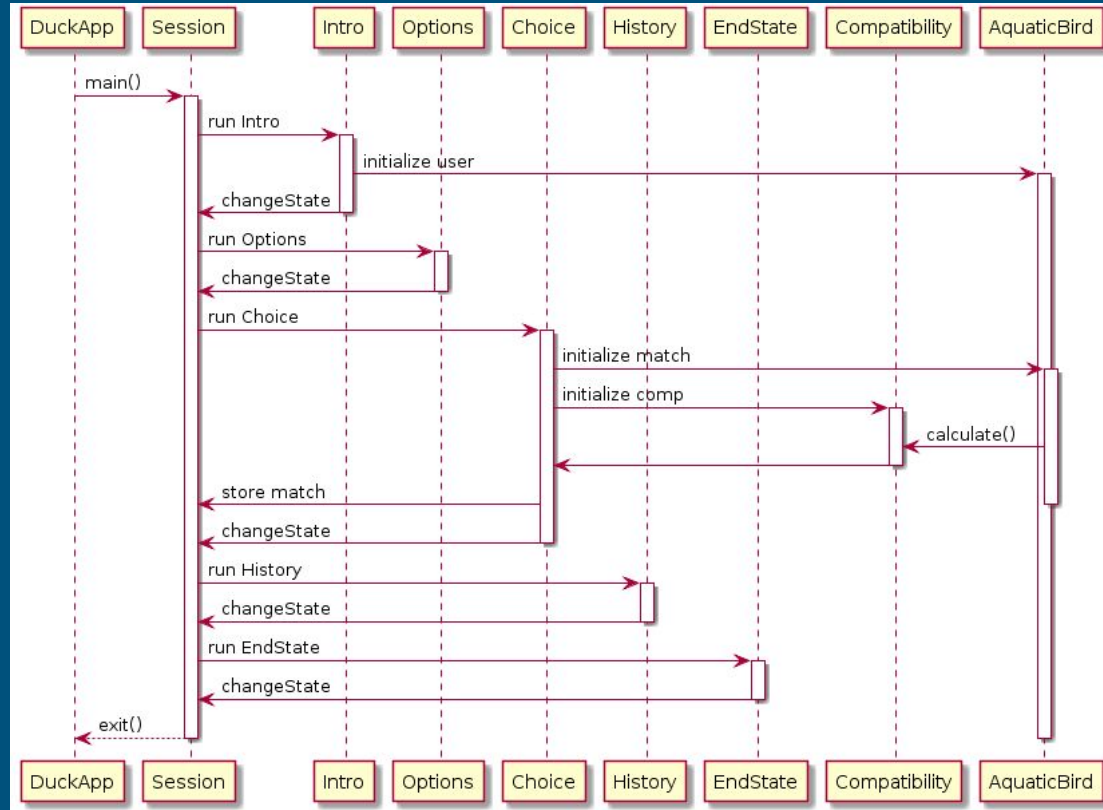
Overview

- Tinder for ducks
- Enter your name and what type of duck you are
- App generates series of potential "matches"
- You choose whether to swipe left or right on the match
- Whether or not they match with you is determined by their preferences
  - Stored in each duck's Profile
  - Probability of match is calculated by Compatibility
- Also have the option to see previous matches made throughout the session

Class Diagram

Interactions Diagram

Design Patterns

- State Pattern
    - Control sequence / user interaction
    - Session class and State class/subclasses
- Strategy Pattern
    - Duck behaviors
    - Profile preferences

Example Output

```
-----------------------------------------------------------------------
Building duck-dating-app 1.0-SNAPSHOT
-----------------------------------------------------------------------

--- exec-maven-plugin:1.2.1:exec (default-cli) @ duck-dating-app ---
Please enter your name:
Fred
Please indicate your species. (D)ecoyDuck, (M)allardDuck, M(O)delDuck, (R)edheadDuck, or R(U)bberDuck:
t
Invalid input.
Please indicate your species. (D)ecoyDuck, (M)allardDuck, M(O)delDuck, (R)edheadDuck, or R(U)bberDuck:
r
What would you like to do next?
(1) See next match
(2) See previous matches
(3) Exit
1

Potential Match:
Selena
22.0% Compatible
Match with Selena? (Y/N)
n

Swiped left on Selena!
It wasn't meant to be.

What would you like to do next?
(1) See next match
(2) See previous matches
(3) Exit
```

```
What would you like to do next?
(1) See next match
(2) See previous matches
(3) Exit
1

Potential Match:
Kylie
72.0% Compatible
Match with Kylie? (Y/N)
y

Swiped right on Kylie!
It's a match!

What would you like to do next?
(1) See next match
(2) See previous matches
(3) Exit
2
Previous Matches:
Lily
Arlen
Luna
Kylie

What would you like to do next?
(1) See next match
(2) See previous matches
(3) Exit
3
Data will not be saved on exit. Continue? (Y/N):
```

Test Output

- Only have tests for the 5 duck subclasses
- With more time, could implement test sets for all classes

```
----------------------------------------------------------
 T E S T S
----------------------------------------------------------
Running edu.vassar.duck.ModelDuckTest
I am Milo of class ModelDuck and I can fly with my wings.
Quack! Quack! Quack! says Betty of the ModelDuck class of ducks.
I am Parker of the ModelDuck class of ducks, and I am swimming.
Tests run: 4, Failures: 0, Errors: 0, Skipped: 0, Time elapsed: 0.226 sec
Running edu.vassar.duck.DecoyDuckTest
I am Theodora of class DecoyDuck and I can't fly.
I can't quack says Trey of the DecoyDuck class of ducks.
I am Michael of the DecoyDuck class of ducks, and I am swimming.
Tests run: 4, Failures: 0, Errors: 0, Skipped: 0, Time elapsed: 0.002 sec
Running edu.vassar.duck.RubberDuckTest
I am Donnie of class RubberDuck and I can't fly.
Squeak! Squeak! says Maddy of the RubberDuck class of ducks.
I am Scott of the RubberDuck class of ducks, and I am swimming.
Tests run: 4, Failures: 0, Errors: 0, Skipped: 0, Time elapsed: 0.001 sec
Running edu.vassar.duck.RedheadDuckTest
I am Antoine of class RedheadDuck and I can fly with my wings.
Quack! Quack! Quack! says Brandon of the RedheadDuck class of ducks.
I am Bradley of the RedheadDuck class of ducks, and I am swimming.
Tests run: 4, Failures: 0, Errors: 0, Skipped: 0, Time elapsed: 0.001 sec
Running edu.vassar.duck.MallardDuckTest
I am Fran of class MallardDuck and I can fly with my wings.
Quack! Quack! Quack! says Eddie of the MallardDuck class of ducks.
I am Brooke of the MallardDuck class of ducks, and I am swimming.
Tests run: 4, Failures: 0, Errors: 0, Skipped: 0, Time elapsed: 0.007 sec

Results :

Tests run: 20, Failures: 0, Errors: 0, Skipped: 0

[INFO] ------------------------------------------------------------------------
[INFO] BUILD SUCCESSFUL
[INFO] ------------------------------------------------------------------------
[INFO] Total time: 4 seconds
[INFO] Finished at: Tue May 15 14:19:46 EDT 2018
[INFO] Final Memory: 25M/1218M
[INFO] ------------------------------------------------------------------------
```

Future Goals

- GUI
- Including Geese in the app
- Making more options available to the user
- Inter-duck messaging
- Duck social groups
- Save feature