Zoo Tycoon

**Program flow**

Welcome user

Tell user/prompt for how much money to start with (need money counterin zoo class/constructor)

~~Prompt for base food cost (need base food cost in zoo class/constructor)~~ [I will make it fixed for now, can add back if time]

Prompt user to buy animals

(“There are three animals you can purchase: Tigers ($10,000), Penguins ($1,000), and Turtles ($100)” “You must buy either 1 or 2 of each animal” “How many will you buy?” “Tigers: ” “Penguins: ” “Turtles: ”)

Store these numbers to pass to Zoo constructor

Zoo constructor creates a zoo with the above data

Game starts. Zoo:

Ages all animals one day

Prints cost of feeding animals last night

Runs a random event and reports to user

Calculates profit/payoff

Asks user to buy adult animal

Check if there is $0; if so, game over.

Ask if they continue or quit

if quit, print zoo stats

if continue, loop back to top

**Class design**

Zoo

Variables

Starting funds

Base food cost

Day counter

Tiger array

Tiger array size

Tiger count

Penguin array

Penguin array size

Penguin count

Turtle array

Turtle array size

Turtle count  
  
 Methods

AdvanceDay

Random events

GrowArray (as per specs)

Animal/Tiger/Penguin/Turtle

Variables

Age – starts at 0, increments 1 for each day passed

Cost - fixed

Litter size – fixed

Base food cost – fixed

Payoff - fixed

Methods

hasAdults() – scans array, returns true if there is an adult (age > 2), otherwise false

**Test plan**

**Reflection**