EM&CP Blk Tuesday, April 5, 2022

PA #9 – Due April 12

Project Proposal — next Wed/Thursday — draft "due"

April 14th

deadline for agreement:
~~Noon/Friday~~,
4:00 pm Thursday

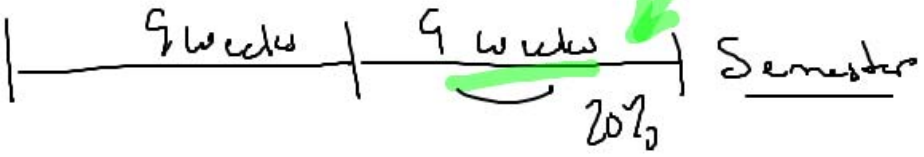
0 on project

25% – 20% of Semester Grade: Project

40-45% of Semester Grade

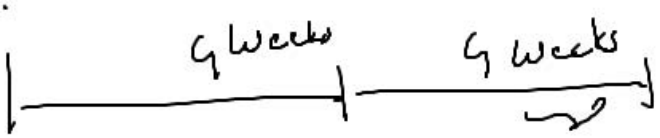
20% – Semester Final

~~Mid Term – 10%~~ 5%



ONLY COUNTED towards semester grade

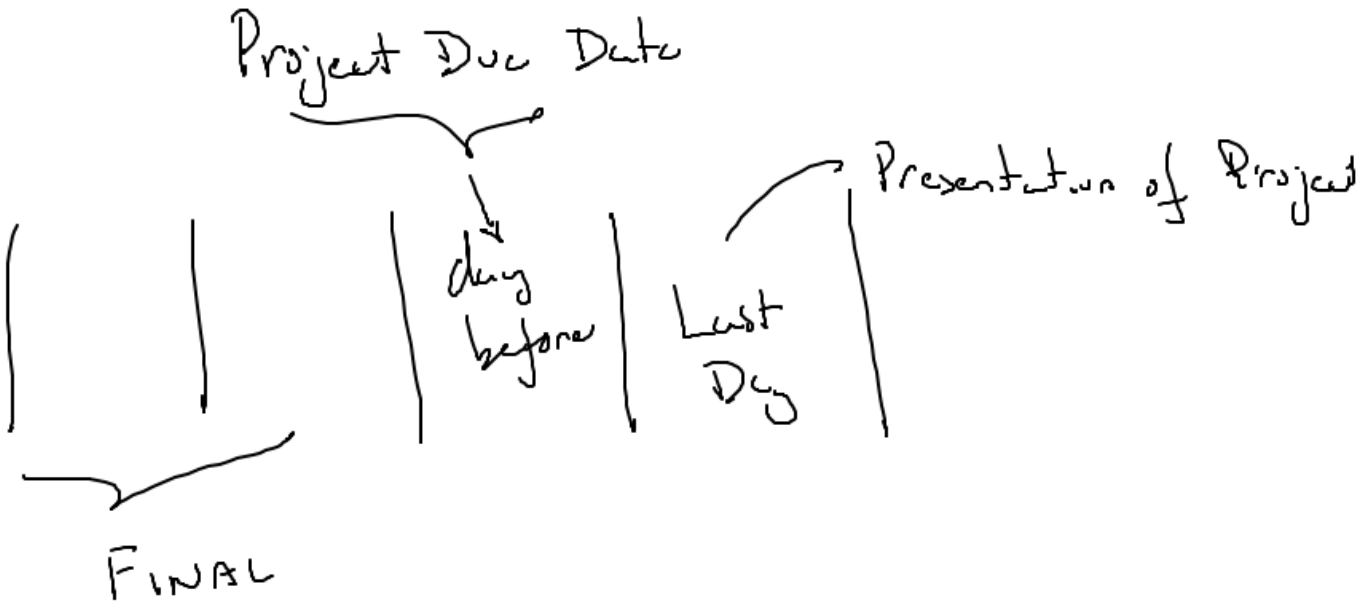
Semester/Class Project
Final Exam
} 45% of Semester Grade



20% will be Semester Final

(1) +(2)

$$\left(\frac{(1)+(2)}{2}\right)(.55) + \left(\frac{\text{Project} + \text{Final}}{2}\right)(.45) = \text{Semester Grade}$$


Project Due Date
Presentation of Project
day before
Last Day
FINAL

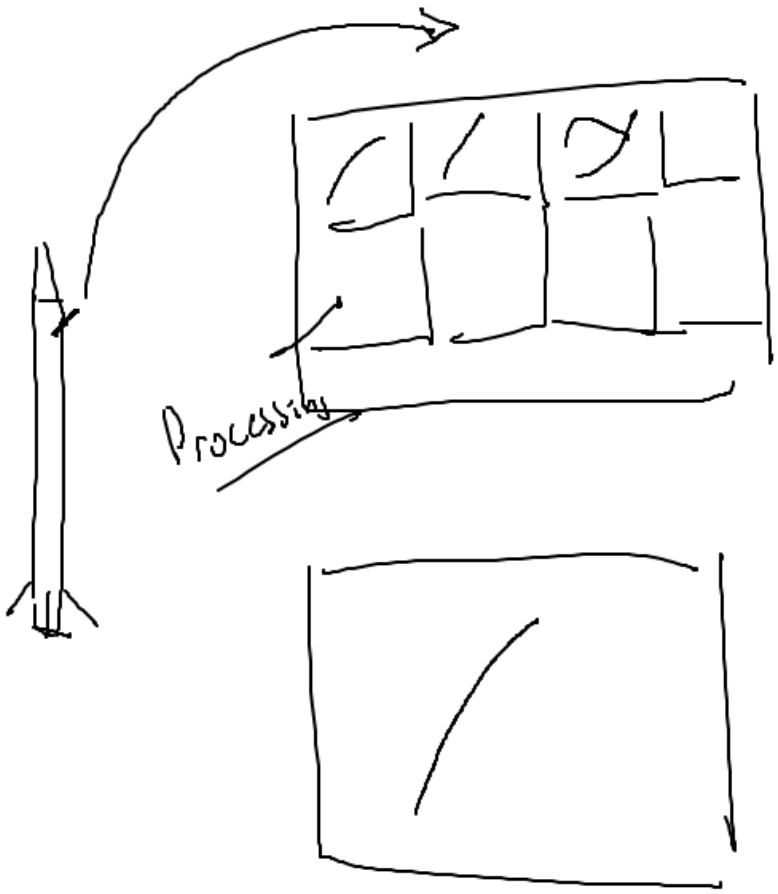
Project

* must contain something new to you
* must contain at least 2 (two) non-trivial classes
* must be substantial amount of work (10-30 hours)

Proposal Review

* library — demo a basic understanding

Proposal ~ 1 page — discussion of what you want your project to be (list out any library(s) you want to use


Processing

random library

random — floating point, between 0 and 1 [0, 1)

randrange

like range → Sequence from which a number is randomly selected

Probability : [0, 1]

0 — 1

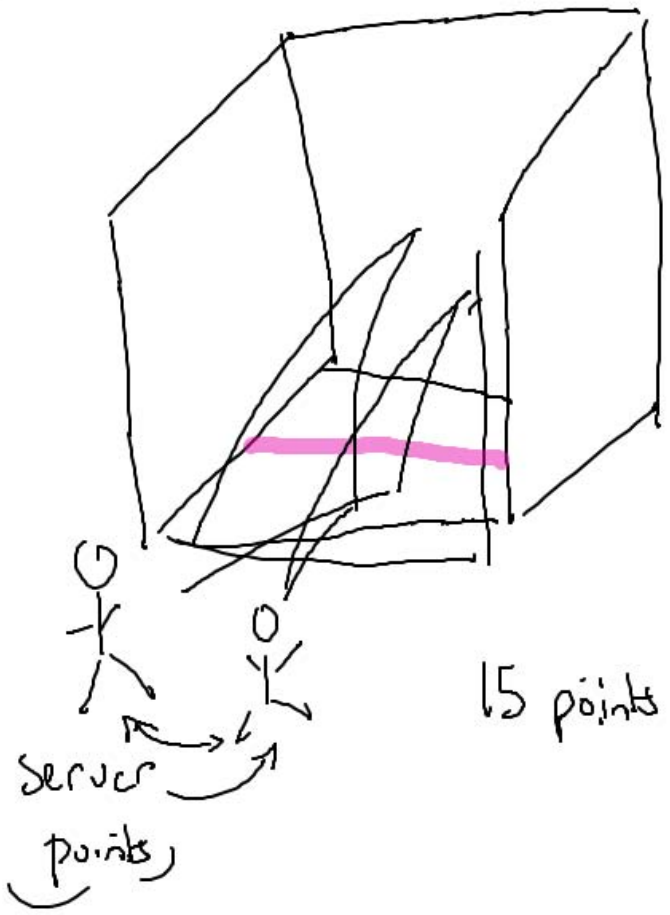
never happens

always happens

P(snow) = .01

P(rain) = .95

raquetball



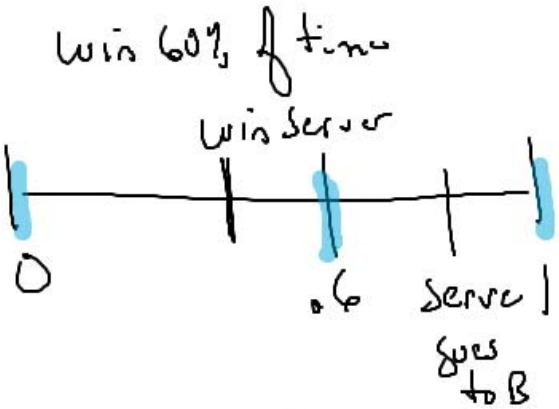
simulate
multiple games
of
raquetball

* player ability

15 points — win

Player A

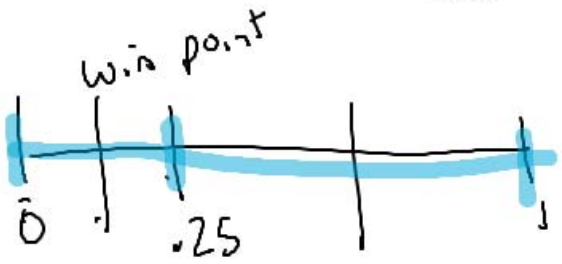
Serves



random()

Player B

win 25% of time

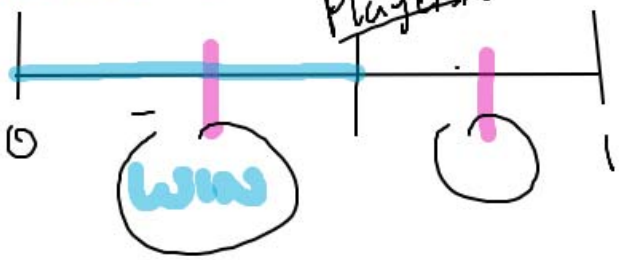


pass serve

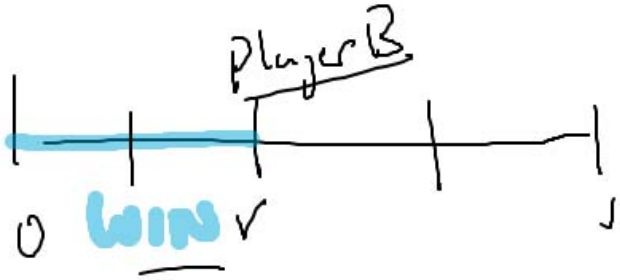
INPUT: probabilities playerA, playerB, n (# of games played)

OUTPUT: stats: # of wins for A, # of wins for B, games played

A

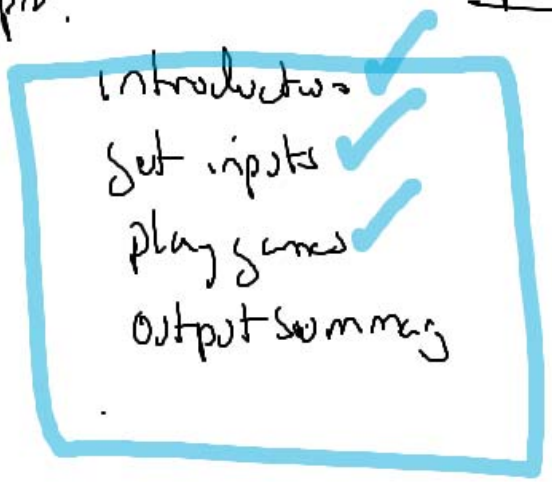


B



Top Down Design

Step 1:



main

(1) SimulateGames ✓
(SimulateOneGame 02)

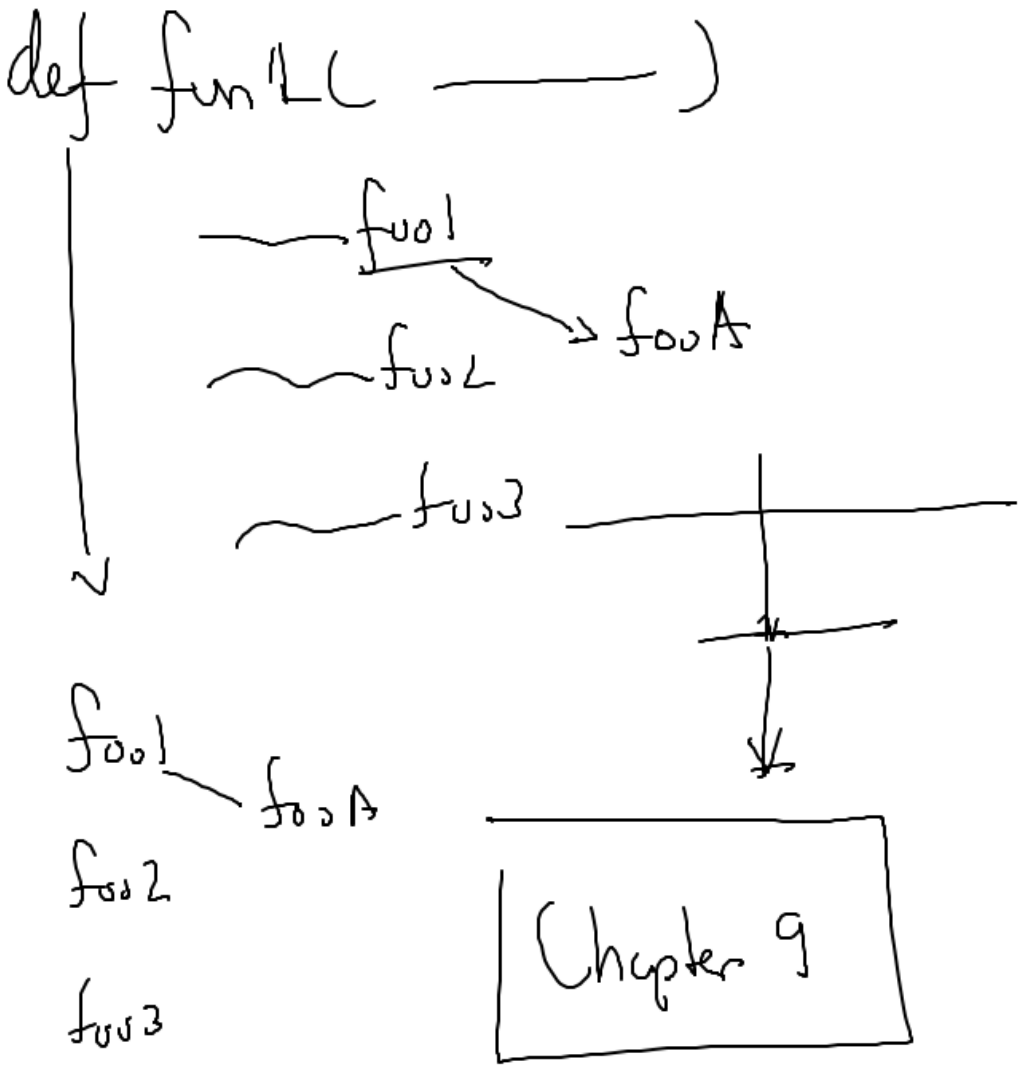
(2) SimulateOneGame
gameOver (5)

(3) gameOver

playGames ✓
play A game n times

play a game ✓
gameOver

gameOver


def fun1(———)
foo1
fooA
foo2
foo3
foo1
fooA
foo2
foo3
Chapter 9