AMD-09: Rock-Paper-Scissors-Lizard-Spock

Applications for mobile devices & Course 2019-2020

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Inspiration

This example was inspired in **TicTacToe**.

Rock-Paper-Scissors-Lizard-

Spock

Sheldon rules



Rules

- Scissors cuts Paper
- Paper covers Rock
- Rock crushes Lizard
- Lizard poisons Spock
- Spock smashes Scissors
- Scissors decapitates Lizard
- Lizard eats Paper
- Paper disproves Spock
- Spock vaporizes Rock
- (and as it always has) Rock crushes Scissors

Compute the winner

$$(\mathit{player1}-\mathit{player2}+5)\%5$$

	COMPUTER					
HUMAN		ROCK=1	SPOCK=2	PAPER=3	LIZARD=4	SCISSORS=5
	ROCK=1	0	1	2	3	4
	SPOCK=2	4	0	1	2	3
	PAPER=3	3	4	0	1	2
	LIZARD=4	2	3	4	0	1
	SCISSORS=5	1	2	3	4	0



Design

- Design all the user interaction in 1 Activity and 2 Dialogs.
- Enter the user name and validate that it is not empty. (BeginGameDialog)
- Select the movement (player).
- IA is going to make a random choice.
- Show round results (EndGameDialog).



UML Design: Models

<<Class>> Player

- + Name: String
- + Decision: Options

<<Class>> Round

- + winner: Player
- + loser: Player
- + getSummary(): String

<<Enumeartion>> Options

ROCK

PAPER

SCISSORS

LIZARD

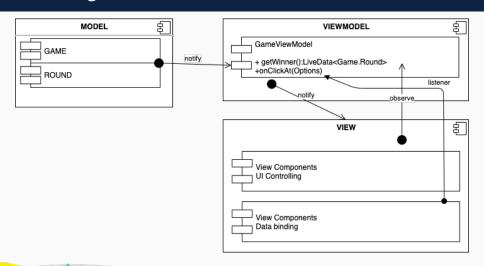
SPOCK

+ getRandom(): Options

<<Class>> Game

- + player: Player
- + ai: Player
- + round: Round
- + summary: MutableLiveData<Round>
- + parseDecision(Options): int
- + playRound: void

UML Design: MVVM



New Stuff

Dialogs: Developers.

DataBindings: Developers

That is all

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gdc — Distributed computation group