ADDS - Practical 3: Rock, Paper, Scissors II

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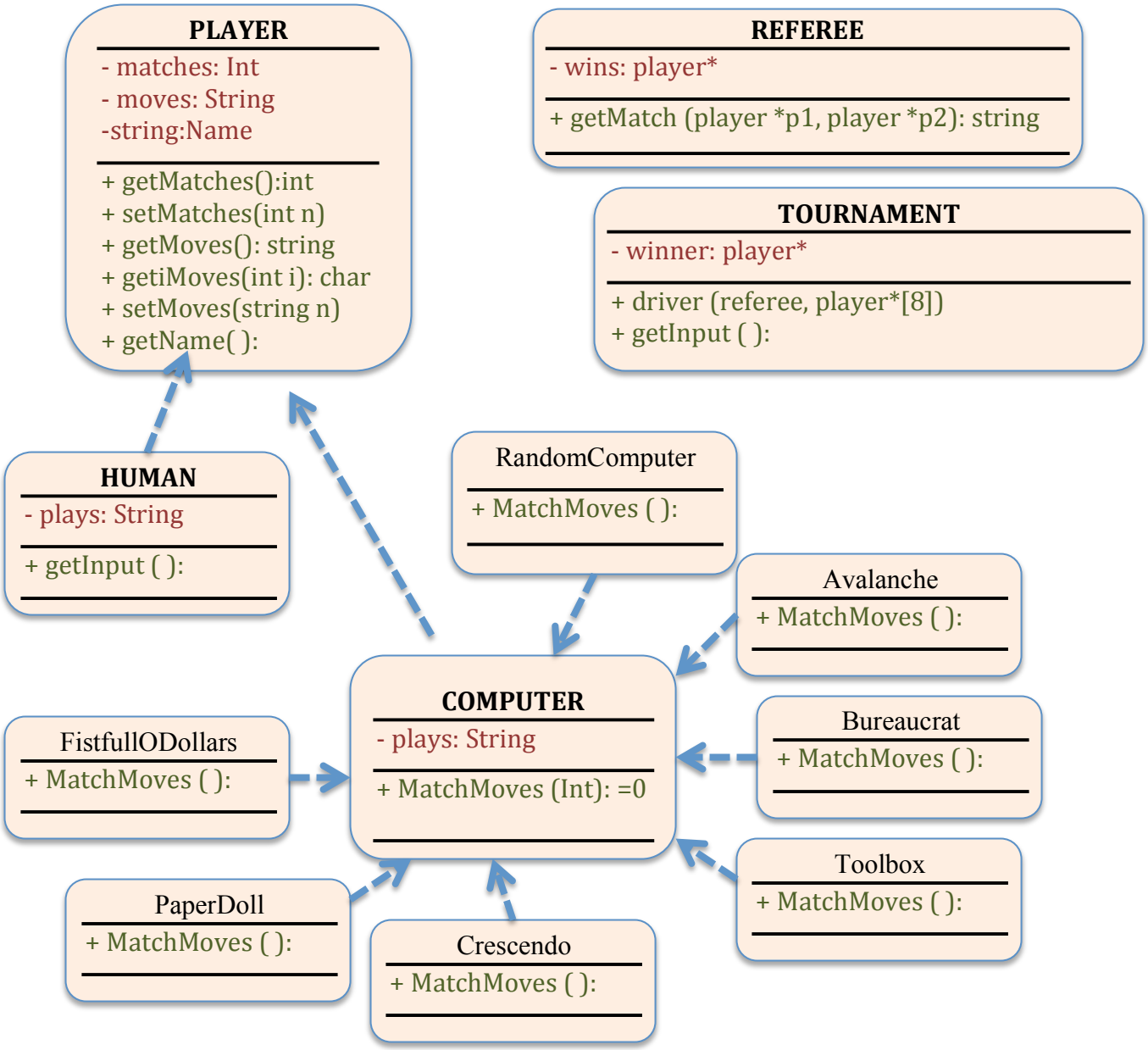
1. DIAGRAM OF CENTRAL CLASSES:



2. EXPLANATION OF CORE FUNCTION:

HUMAN:

void getInput ( ):

It will ask the user for an input and will store it in the string "plays". After that, it will store the first integer in "numbers" and then letters in the string "moves". It will check the coherence between the number of matches given and the number of letters, and that the letters match with S or P or R.

COMPUTER:

void MatchMoves (int m): (Virtual)

This funtion will allow the childs classes to fill the string "moves" of the computer player m times, with the customize plays.

REFEREE:

string getMatch(player p1, player p2)

The result of every match will be store in the string wins, indicating W is the p1 win, or L is the second player win. This funtion will return the string.

TOURNAMENT:

getInput ()

Ask the user for a strings as input and will created an array of 8 computer pointers with the name giving in the input.

driver() Take the objects, match the 8 en pairs, store the 4 winners in an array of pointer, then match the 4 in pais ans store the winner in another array. Finally match the 2 semifinal winners, store the winnes in a pointer and print the name.

Main:

The main function for this program, created a human object and call the getInput funtion of it. Then created a computer player and call the randMoves funtion with the int matches as parameter. And finally a referee is created and the getMatch funtion of this object is called, which will print the results of the match.

3. TESTING: Following is a description of the test cases that will be used to test my program.

Given input	Rationale	I expect output
Avalanche Bureaucrat Bureaucrat Toolbox Toolbox Crescendo Crescendo Fistful-lODollars	Test the example input giving in the practical.	Toolbox
Avalanche Bureaucrat Bureaucrat Toolbox Toolbox Crescendo Crescendo	Test that it will not work with less than 8 players	Will do nothing
Avalanche BUREAUCRAT BUREAUCRAT Toolbox Toolbox Crescendo Crescendo Fistful-lODollars	Test that the program will not accept different inputs that the names of the computer players, no even the names in upperletters.	Will do nothing
AvalancheBureaucrat Bureaucrat Toolbox ToolboxCrescendo Crescendo	Test that the program is checking for the spaces between the characters.	Will do nothing
Avalanche Avalanche Avalanche Avalanche	Test the second example input giving in the practical.	Bureaucrat

Avalanche **Bureaucrat** **Avalanche** **Avalanche**		