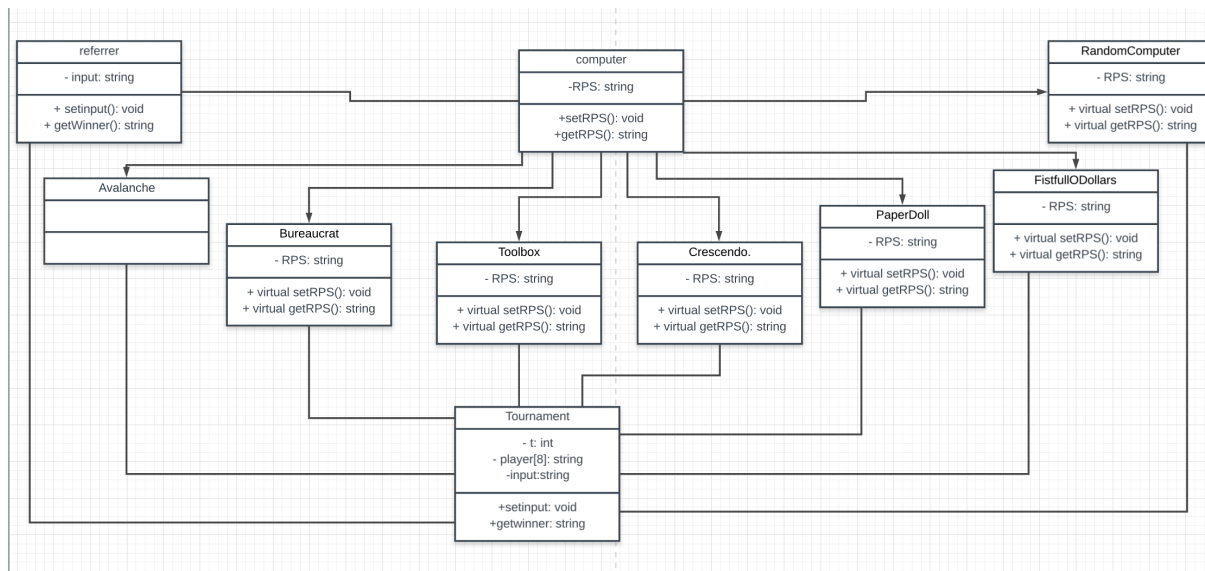


Practical 3: Rock, Paper, Scissors II

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Description:

Computer class: is to set and get RPS for computer

`virtual void setRPS(int t);`//set the RPS for computer

`virtual std::string getRPS();`//return the RPS for computer

RandomComputer class: this class is inheritance to computer class. RandomComputer returns a random move.

`virtual void setRPS(int t);`//set RPS for randomcomputer

`virtual std::string getRPS();`//return RPS for randomcomputer

fistfullODollars class: this class is inheritance to computer class. FistfullODollars moves in the following order: Rock, Paper, Paper

`virtual void setRPS(int t);`//set RPS

`virtual std::string getRPS();`//return RPS

PaperDoll class: this class is inheritance to computer class. Paper doll moves in the following order: Paper, Scissors, Scissors.

`virtual void setRPS(int t);`//set RPS

`virtual std::string getRPS();`//return RPS

Crescendo class: this class is inheritance to computer class. Crescendo moves in the following order: Paper, Scissors, Rock.

```
virtual void setRPS(int t);//set the RPS
virtual std::string getRPS();//return the RPS
```

Toolbox class: this class is inheritance to computer class. Toolbox always chooses Scissors.

```
virtual void setRPS(int t);//set the RPS
virtual std::string getRPS();//return the RPS
```

Bureaucrat class: this class is inheritance to computer class. Bureaucrat always chooses Paper.

```
virtual void setRPS(int t);//set the RPS
virtual std::string getRPS();//return the RPS
```

Avalanche class: this class is inheritance to computer class. Avalanche always chooses Rock.

```
virtual void setRPS(int t);//set the RPS
virtual std::string getRPS();//return the RPS
```

Referee class: this class is compare which player win.

```
//used to compare and which string can win the output
int printoutput(std::string c1, std::string c2);
```

Tournament class: there have 8 players and tournament class is used to see who is the winner.

```
void setinput();//set the input and separate the input with space and put them into array
player[8]
std::string getwinner(int t);//compare with the players and see who can win last
```

Test:

For testing the input and the moves:

Input: Bureaucrat Avalanche Avalanche Toolbox Crescendo PaperDoll FistfullODollars
Bureaucrat

Expect output: 0PPPPP 1RRRRR 2RRRRR 3SSSSS 4PSRPS 5PSSPS 6RPPRP 7PPPPP

Output: 0PPPPP 1RRRRR 2RRRRR 3SSSSS 4PSRPS 5PSSPS 6RPPRP 7PPPPP

Input: Avalanche Bureaucrat Bureaucrat Toolbox Toolbox Crescendo Crescendo
FistfullODollars

Expect output: 0RRRRR 1PPPPP 2PPPPP 3SSSSS 4SSSSS 5PSRPS 6PSRPS 7RPPRP

Output: 0RRRRR 1PPPPP 2PPPPP 3SSSSS 4SSSSS 5PSRPS 6PSRPS 7RPPRP

Input: Avalanche Avalanche Avalanche Avalanche Avalanche Bureaucrat Avalanche

Avalanche Expect output: 0RRRRR 1RRRRR 2RRRRR 3RRRRR 4RRRRR 5PPPPP 6RRRRR
7RRRRR

Output: 0RRRRR 1RRRRR 2RRRRR 3RRRRR 4RRRRR 5PPPPP 6RRRRR 7RRRRR

Testing for first round:

Input: Bureaucrat Avalanche Avalanche Toolbox Crescendo PaperDoll FistfullODollars
Bureaucrat

Expect output: !!!!!PPPPP !!!!!RRRRR !!!!!PSRPS !!!!!PPPPP

Output: !!!!!PPPPP !!!!!RRRRR !!!!!PSRPS !!!!!PPPPP

Input: Avalanche Bureaucrat Bureaucrat Toolbox Toolbox Crescendo Crescendo
FistfullODollars

Expect output: !!!!!PPPPP !!!!!SSSSS !!!!!SSSSS !!!!!PSRPS

Output: !!!!!PPPPP !!!!!SSSSS !!!!!SSSSS !!!!!PSRPS

Input: Avalanche Avalanche Avalanche Avalanche Avalanche Bureaucrat Avalanche
Avalanche

Expect output: !!!!!RRRRR !!!!!RRRRR !!!!!PPPPP !!!!!RRRRR

Output: !!!!!RRRRR !!!!!RRRRR !!!!!PPPPP !!!!!RRRRR

Testing for second round:

Input: Bureaucrat Avalanche Avalanche Toolbox Crescendo PaperDoll FistfullODollars
Bureaucrat

Expect output: ????????PPPPP ????????PSRPS

Output: ????????PPPPP ????????PSRPS

Input: Avalanche Bureaucrat Bureaucrat Toolbox Toolbox Crescendo Crescendo
FistfullODollars

Expect output: ????????SSSSS ????????SSSSS

Output: ????????SSSSS ????????SSSSS

Input: Avalanche Avalanche Avalanche Avalanche Avalanche Bureaucrat Avalanche
Avalanche

Expect output: ????????RRRRR ????????PPPPP

Output: ????????RRRRR ????????PPPPP

Testing for the winner:

Input: Bureaucrat Avalanche Avalanche Toolbox Crescendo PaperDoll FistfullODollars
Bureaucrat

Expect output: Crescendo

Output: Crescendo

Input: Avalanche Bureaucrat Bureaucrat Toolbox Toolbox Crescendo Crescendo
FistfullODollars

Expect output:

Output: Toolbox

Input: Avalanche Avalanche Avalanche Avalanche Avalanche Bureaucrat Avalanche
Avalanche

Expect output: Bureaucrat

Output: Bureaucrat