UML class diagram of Cryptogram

Cryptogram

+ solutionPhrase : String
+ encodedPhrase : String
+ uniqueIdentifier : String
+ solution : String

+ encodeAlphabeticCharacter() : void

Player

- firstName : String
- lastName : String
+ playerUserName : String

+ chooseCryptogram() : void
+ solveCryptogram() : void
+ checkPreviousSolvedCryptogram() : void
+ viewListOfAvailableCryptogram() : void
+ viewPlayerRating() : void
+ assignReplacementLetter() : void
+ reassignReplacementLetter() : void
+ previewSubmission() : void
+ submitSolution() : void

CentralServer

<<Utility>>
ExternalWebService

+ confirmationMessage : String
+ result : String

+ sendUpdatedPlayerRating (ArrayList) : void
+ sendNewCryptogram () : void
+ recieveUniqueIdentifier () : void
+ requestListOfAdditionalCryptogram () : void
+ requestCurrentPlayerRating () : void
+ checkSolutionCorrect () : boolean
+ sendConfirmationMessage (): void
+ checkResult () : void

Administrator

- adminstratorUserName : String

+ createCryptogram() : void
+ updateCryptogram() : void
+ createNewPlayer (String, String, String) : void
+ checkUserNameUnique() : boolean
+ saveCryptogram() : void

DataAccessObject

+ cryptogram : String
+ player : String
+ solution: String

PreviousSolvedCryptogram

+ playerUserName: String
+ hasBeenSolved : boolean
+ cryptogram : String
+ priorSolution : String
+ completeOrNot : boolean

ListOfAvailableCryptogram

+ uniqueIdentifier : String
+ hasBeenSolved : boolean
+ numberOfIncorrectSubmission: Integer

ListOfPlayerRating

+ playerUserName : String
+ firstName : String
+ lastName : String
+ numberOfCryptogramSolved : Integer
+ numberOfCryptogramStarted : Integer
+ numberOfIncorrectSubmission : Integer

access 1...*
1..*
solve 1...*
1..*
0..1
0..1
1..*
0..*
create 0..1
create 0..1
check
save 0..1
1..*
1..*
1..*
1..*