| FrameData |
| --- |
| -mCurrentFrameIndex:size_t
-mFirstTryPinScore:size_t
-mSecondTryPinScore:size_t
-mThirdTryPinScore:size_t
-mIsSpare:bool
-mIsStrike:bool
-mCurrentFrameScore:size_t
-mSpareBonus:size_t
-mStrikeBonus:size_t |
| +FrameData(_currentFrameIndex:size_t,_firstTryPinScore:size_t,_secondTryPinScore :
size_t,_thirdTryPinScore:size_t,_isSpare:bool,_isStrike:bool,_currentFrameScore:size_t,
_spareBonus:size_t,_strikeBonus:size_t)
setFrameID(_frameID:const size_t&):void
<<const>>
+getFrameID():const size_t&
+setFirstTryPinScore(_firstTryPinScore:size_t):void
<<const>>
+getFirstTryPinScore():const size_t&
+setSecondTryPinScore(_secondTryPinScore:size_t):void
<<const>>
+getSecondTryPinScore():const size_t&
+setThirdTryPinScore(_ThirdTryPinScore:size_t):void
+getThirdTryPinScore():const size_t&
+setSpareFlag(_isSpareFlag:bool):void
<<const>>
+getSpareFlag():const bool&
+setStrikeFlag(_isStrikeFlag:bool):void
<<const>>
+getStrikeFlag():const bool&
+setCurrentFrameScore(_currentFrameScore:size_t):void
<<const>>
+getCurrentFrameScore():const bool&
+setSpareBonus(_spareBonus:size_t):void
<<const>>
+getSpareBonus():const size_t&
+setStrikeBonus(_strikeBonus:size_t):void
<<const>>
+getStrikeBonus():const size_t&
<<const>>
+getPrevFrameIndex():const size_t
+inputDataValidation(currentFrameDataIndex:const size_t&):void
+~FrameData()
-inputValidation(_pinScore:size_t&):void
-validateInputPinScore():void |

```
PlayerData
- mPlayerName:string
- mCurrPlayerFrameData:vector<FrameData>
```
```
+PlayerData(_playerName:string)
+addFrameData(_frameData:const FrameData&):void
+calculatePerFramePlayerScore():void
<<const>>
+getPlayerName():string
<<const>
+getPrevFrameScore(prevFrameID:const size_t& ):const size_t&
+getCurrentPlayerFrameData():const vector<FrameData>&
+~PlayerData()
-inputValidation():void
-calculateSpareBonusScore(frameIndex:const size_t&):size_t
-calculateStrikeBonusScore(frameIndex:const size_t&):size_t
```

```
BowlingGame
- mPlayerFrameData:static vector<PlayerData>
```
```
+BowlingGame()
+ addPlayerData(_playerData:const PlayerData&):void
+ playerFrameScoreDataPrinter():void
+ calculateScore():void
+~BowlingGame()
-inputUTDataValidation(playerIndex:const size_t&):void
-executeUnitTestCase():void
```

```
GameException
-mExceptionMessage: string
```
```
+ GameException(_exceptionMessage:const std::string&)
+ what():const char*
```

Relationships between classes [PlayerData & FrameData Association]

Whole(Container) Class
PlayerData

Part(Contained) Class
FrameData
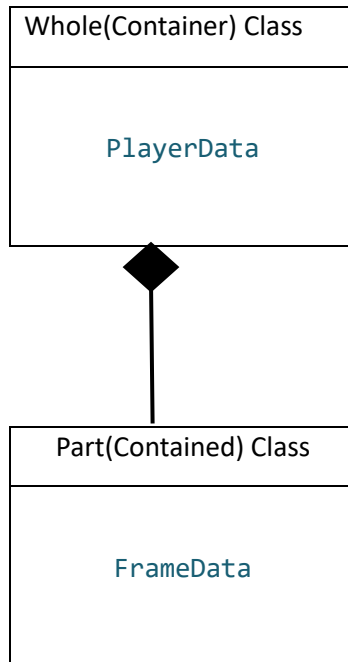
Relationships between classes [BowlingGame & PlayerData Association]

Whole(Container) Class
BowlingGame

Part(Contained) Class
PlayerData