s3742774 | December 16, 2019 Application Main +main(String[] args) +start(Stage primaryStage) MainController -@FXML mainView : GridPane -@FXML soundController : SoundController -@FXML cardPuzzleController : CardPuzzleController  $-@\mathsf{FXML}\ count Down Timer Controller: Count Down Timer Controller$ -@FXML levelController : LevelController  $\hbox{-} @ {\sf FXML} \ score Controller: Score Controller \\$ +<<contructor>> MainController()
-@FXML initialize() +startNewGame() -injectMainControllerInNestedControllers() +checkIsEnabledSound(): boolean +getGameLevel(): int +promptStartGameInstructionWindow() +promptGameWonWindow() +promptGameLostWindow() +checkIsGameRunning(): boolean +handleGameWon() +handleGameLost() CardPuzzleController CountDownTimerController LevelController ScoreController SoundController -@FXML countdownProgressBar : ProgressBar -@FXML btnStartPauseGame : Button -@FXML btnNewGame : Button - <<constant>> SOUND\_ON\_IMG\_URL : String - <<constant>> SOUND\_OFF\_IMG\_URL : String -@FXML playerCardPuzzle : GridPane -mainController : MainController -@FXML minutesLabel : Label -@FXML soundEnabledBtn : Button -@FXML gameLevelView : Label -mainController : MainController -cardFlipSound : Sound -@FXML gameScoreView : Label -@FXML secondsLabel : Label -mainController : MainController -playerCardList : PlayerCardList -prevCardFlipped : PlayerCard -mainController : MainController -@FXML hundthsecsLabel : Label -mainController : MainController -btnSound : Sound -gameLevel : int -backgroundMusic : Sound -isEnabledSound : boolean -pairMatchedCount : int -btnClickedSound : Sound cardFlipCount : int -timeLine : TimeLine -soundOnImg : Image -countdownTimer : CountDownTimer -soundOffImg : Image -bgSoundOnImg : Background -bgSoundOffImg : Background + <<contructor>> CountDownTimerController() + <<contructor>> CardPuzzleController() -@FXML initialize() +injectMainController(mainController : Maincontroller) -@FXML initialize() +injectMainController(mainController Maincontroller) + <<contructor>> LevelController() -updateTimer() +createFlipAnimation(): RotateTransition -@FXML initialize() -setTimerLabelAndProgressBar() + <<contructor>> LevelController()
-@FXML initialize() +flipOpen(playerCard : PlayerCard) +injectMainController(mainController: Maincontroller) + <<contructor>> SoundController() -calculateTimerProgressBarValue() +flipClose(playerCard : PlayerCard) +promptGetLevelWindow() -@FXML btnStartPauseGameHandler()
-@FXML btnNewGameHandler() +injectMainController(mainController: Maincontroller) -@FXML initialize() +removePrevCardList() +createNewCardPuzzle() +getGameLevel : int +injectMainController(mainController : Maincontroller) +updateGameScoreView() +updateGameLevelView() +checkIsGameRunning(): boolean +setSoundEnableButtonImage() +setCardCloseTime() +getTimeElapsed(): int +setSoundEnableBtnHandler() +setCardFlipEventHandler() +stopTimer() +getIsSoundEnabled() : boolean +resetTimer() 0..\* 0..\* 0..\* PlayerCardList CountDownTimer - <<constant>> BUTTON\_SOUND\_URL : String - <<constant>> CARD\_FLIPPING\_SOUND\_URL : String -imageViewer : ImageView - minutes : int - <<constant>> BACKGROUND\_MUSIC\_URL : String -playerCardList : ArrayList<PlayerCard> -defaultImage : Image - seconds : int -playerImage: Image - hundthsecs : int - <<constant>> BUTTON\_SOUND\_TYPE : String - <<constant>> CARD\_FLIPPING\_SOUND\_TYPE : String - <<constant>> BACKGROUND\_MUSIC\_TYPE : String - isTimerRunning : boolean -playerCardId : int -isFlippedOpen : boolean natchedStatus : boolean +<<constructor>> PlayerCardList() + getPlayerCardByNo(cardNo : int) - backgroundMusic : MediaPlayer + <<constructor>> CountDownTimer(minutes : int, seconds : int. hundthsecs : int) + getPlayerCardListSize() : int + <<constructor>> Sound(soundType : String) +<constructor> PlayerCard (ImageNo : int) + countDown() : boolean + makeSound() + pauseBackgroundMusic() + resumeBackgroundMusic()