```
Dice
                                                                                                                                                                                                                                                               GameModel
                                                                                      GameController
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BlueHorse
                                                                                                                                                                                                                                                                                                                                     - firstPlayer:int = 0
 view: new GameView()
                                                                                                                                                                                                                                     dice: Dice = new Dice()
                                                                                                                                                                                                                                                                                                                                     - numberOfRollTimes: int = 0

    model: new GameModel(

                                                                                                                                                                                                                                     gameMap: Board = new Board()
                                                                                                                                                                                                                                                                                                                                     - firstDice, secondDice, totalDice: int
 soundOffBtn, soundOnBtn, toVNBtn, continueBtn, quitGameBtn, quitGameBtn1, rollDiceBtn, restartBtn, newGameBtn, firstDiceBtn, secondDiceBtn, totalDiceBtn,
                                                                                                                                                                                                                                     turn: String = "none"
                                                                                                                                                                                                                                                                                                                                                                                                                             blueHorsesList: ArravList<BlueHorse> = new
                                                                                                                                                                                                                                                                                                                                     allDiceUsed: boolean = false
                                                                                                                                                                                                                                     currentTurn: String = "none"
plavAgainBtn: Button
                                                                                                                                                                                                                                                                                                                                                                                                                            ArravList<BlueHorse>()
                                                                                                                                                                                                                                                                                                                                     - rolls: ArrayList<Integer>: new ArrayList<Integer>()
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          resetHorse()
 red1Btn, red2Btn, red3Btn, red4Btn, blue1Btn, blue2Btn, blue3Btn, blue4Btn, yellow1Btn, yellow2Btn, yellow3Btn, yellow4Btn, green1Btn, green2Btn, green3Btn,
                                                                                                                                                                                                                                     player: Player[] = new Player[4]
                                                                                                                                                                                                                                                                                                                                                                                                                             yellowHorsesList: ArrayList<BlueHorse> = new
                                                                                                                                                                                                                                                                                                                                     - selectedDice: String
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         · checkRegularMove()
green4Btn: RadioButton
                                                                                                                                                                                                                                     numberOfPlayer, noOfHumanPlayer, numberOfMoves: int
                                                                                                                                                                                                                                                                                                                                                                                                                            ArrayList<BlueHorse>()
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        boolean
 - englishLanguageBox, vietnameseLanguageBox: choiceBox
                                                                                                                                                                                                                                                                                                                                                                                                                             greenHorsesList: ArrayList<BlueHorse> = new
 humanPlayers, machinePlayers: Slider
                                                                                                                                                                                                                                                                                                                                                                                                                            Arrayl ist<BlueHorse>()
                                                                                                                                                                                                                                                                                                                                     + resetDice()
                                                                                                                                                                                                                                     restartGame()
 name1, name2, name3, name4: TextField
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          # currentPos, nextPos, startPos, homeArrivalPos,
                                                                                                                                                                                                                                                                                                                                     + findFirstPlayer(numberOfPlayers: int)
                                                                                                                                                                                                                                                                                                                                                                                                                             redHorsesList: ArrayList<BlueHorse> = new
                                                                                                                                                                                                                                     rewGame()
 confirmQuitBox, setUpInterface, endGamePane, playAgainPane: StackPane
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            YellowHorse
                                                                                                                                                                                                                                                                                                                                                                                                                            ArrayList<BlueHorse>()
                                                                                                                                                                                                                                                                                                                                    - getRandomDiceValue(): int
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          horseNumber, inNestPos: int
                                                                                                                                                                                                                                     resetGameModel()
 setUp1, setUp2: VBox
                                                                                                                                                                                                                                                                                                                                                                                                                             horsesMovableStatus: boolean[] = new boolean[4]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          # homePos: int[] = new int[6]
                                                                                                                                                                                                                                                                                                                                     + getFirstPlayer(): int
                                                                                                                                                                                                                                     setPlayerInfo(name: String, color: String, playerNumber:
 player3Color, player4Color, score3, score4: HBox
                                                                                                                                                                                                                                                                                                                                                                                                                             moveType: String[] = new String[4]
                                                                                                                                                                                                                                                                                                                                      getNumberOfRollTimes(): int
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         # color: String
                                                                                                                                                                                                                                    int, labelNumber: int)
 horseBlue1, horseBlue2, horseBlue3, horseBlue4, pointBlue1, pointBlue2, pointBlue4, horseYellow1, horseYellow2, horseYellow3, horseYellow4,
                                                                                                                                                                                                                                                                                                                                                                                                                             gameMap: String[][]= new String[88][]
                                                                                                                                                                                                                                                                                                                                     + rollDice()
                                                                                                                                                                                                                                     + setPlayerType(playerNumber: int, labelOrder: int)
pointYellow1, pointYellow2, pointYellow3, pointYellow4, horseGreen1, horseGreen2, horseGreen3, horseGreen4, pointGreen1, pointGreen2, pointGreen3,
                                                                                                                                                                                                                                                                                                                                                                                                                             capturedHorseInfo: String[][] = new String[4][]
                                                                                                                                                                                                                                                                                                                                     setAllDiceUsed()
                                                                                                                                                                                                                                     getNumberOfPlayer(): int
 pointGreen4, horseRed1, horseRed2, horseRed3, horseRed4, pointRed1, pointRed2, pointRed3, pointRed4, dice1Img, dice2Img: ImageView
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         resetHorse()
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          + blockNextMove()
                                                                                                                                                                                                                                                                                                                                                                                                                             emptySpotOnMap: String[][] = {"-1", "-1"}
                                                                                                                                                                                                                                                                                                                                     + resetAllDiceUsed()
                                                                                                                                                                                                                                     getNumberOfRollTimes(): int
 player1Name, player2Name, player3Name, player4Name, machineLabel, humanLabel, completePlayerNoti, highestScoreNoti, player1Score, player2Score,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          + checkMoveType(dice: int, selectedValue: String): String
                                                                                                                                                                                                                                                                                                                                     + getAllDiceUsed()
                                                                                                                                                                                                                                     findFirstPlayer()
player3Score, player4Score, completePlayer, highestScorePlayer, scoreLabel, diceLabel, setUp2AlertMessage, setUp2Notice, setUp1Notice, colorLabel, nameLabel,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          + checkUpperHome(diceResult: int): boolean
                                                                                                                                                                                                                                     setFirstTurn()
confirmQuitMessage, languageLabel, congratulationNoti, playerTurnName, turnLabel, diceUsed, leaveNestLabel, enterHomeLabel, upperHomeLabel,
                                                                                                                                                                                                                                                                                                                                                                                                                             createHorses()
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          + findIndex(homePos[]: int, t: int): int
                                                                                                                                                                                                                                     findNextPlayerToRoll(count: int)
 regularMoveLabel, capturedLabel, diceUsedValue, capturedHorseLabel: Label
                                                                                                                                                                                                                                                                                                                                                                                                                             resetBoard()
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          + checkRegularMove(diceResult: int): boolean
                                                                                                                                                                                                                                     findFirstPlayerToRoll(): int
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GreenHorse
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          - getNextRegularMovePos(diceResult: int): int
                                                                                                                                                                                                                                                                                                                                                                                                                             setUpBoard()
                                                                                                                                                                                                                                     setPrepareTurn()
                                                                                                                                                                                                                                                                                                                                                                                                                             setMovingPathPositions()
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           checkEnterHome(diceResult: int): boolean
 + playSound(event: ActionEvent)
                                                                                                                                                                                                                                     setNextTurn()
                                                                                                                                                                                                                                                                                                                                                                                                                             setNestPositions()
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          + checkLeaveNest(dice: int): boolean
 + muteSound(event: ActionEvent)
                                                                                                                                                                                                                                     findNextTurn()
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          + moveHorse(moveType: String)
                                                                                                                                                                                                                                                                                                                                                                                                                             setHomePositions(
 + toSetUp2(event: ActionEvent)
                                                                                                                                                                                                                                     validTurn(): boolean
                                                                                                                                                                                                                                                                                                                                                                 Player
                                                                                                                                                                                                                                                                                                                                                                                                                             + checkADice(playerColor: String, dice: int, selectedValue: String):
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          + countDistantToHome(): int
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         resetHorse()
                                                                                                                                                                                                                                     getPlayerType(int playerNumber): String
 + toSetUp1(event: ActionEvent)
 + selectAColorRed(event: ActionEvent)
                                                                                                                                                                                                                                     + getPlayerType(): String
                                                                                                                                                                                                                                                                                                                                     - score:Score = new Score()
                                                                                                                                                                                                                                                                                                                                                                                                                             checkHorsesMoves(dice: int, selectedValue: String, horseColor:
 + selectAColorBlue(event: ActionEvent)
                                                                                                                                                                                                                                     rollDice()
                                                                                                                                                                                                                                                                                                                                     - name, playerType: String
                                                                                                                                                                                                                                                                                                                                                                                                                           String): boolean
                                                                                                                                                                                                                                     resetNumberOfMoves()
 + selectAColorGreen(event: ActionEvent)
                                                                                                                                                                                                                                                                                                                                     - labelNumber: int
                                                                                                                                                                                                                                                                                                                                                                                                                             checkHorse(horse: Horse, dice: int, selectedValue: String,
                                                                                                                                                                                                                                     getNumberOfMoves(): int
 + selectAColorYellow(event: ActionEvent)
                                                                                                                                                                                                                                                                                                                                    - color: String = "none"
                                                                                                                                                                                                                                                                                                                                                                                                                            horseNumber: int, horseColor: String): boolean
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RedHorse
 - selectAColor(Btn1: RadioButton, Btn2: RadioButton, Btn3: RadioButton, Btn4: RadioButton)
                                                                                                                                                                                                                                      setNumberOfMoves(numberOfMoves: int)
                                                                                                                                                                                                                                                                                                                                                                                                                             isBlock(horse: Horse, horseColor: String, horseNumber: int):
 + restartGame(event: ActionEvent)
                                                                                                                                                                                                                                     stopMoving()
                                                                                                                                                                                                                                                                                                                                                                                                                            boolean
                                                                                                                                                                                                                                     + getPlayerColor(playerNumber: int): String
                                                                                                                                                                                                                                                                                                                                     resetPlayer()
 - setUpBoard()
                                                                                                                                                                                                                                                                                                                                                                                                                             checkBlockOnPath(nextPos: int, currentPos: int): boolean
setVisibleHorses()
                                                                                                                                                                                                                                     getPlayerName(playerNumber: int): String
                                                                                                                                                                                                                                                                                                                                     setInfo(name: String, color: String, labelNumber: int)
                                                                                                                                                                                                                                                                                                                                                                                                                             checkNextPos(nextPos: int, horseColor: String,
 + newGame(event: ActionEvent)
                                                                                                                                                                                                                                     getScore(playerNumber: int): String
                                                                                                                                                                                                                                                                                                                                     + getPlayerType(): String
                                                                                                                                                                                                                                                                                                                                                                                                                            horseCapturingNumber: int): boolean
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         resetHorse()
 + startGame(event: ActionEvent)
                                                                                                                                                                                                                                     getIntScore(playerNumber: int): int
                                                                                                                                                                                                                                                                                                                                      getPlayerName(): String
                                                                                                                                                                                                                                                                                                                                                                                                                             setMovableHorse(horseNumber: int)
 validatePlayersName(): boolean
                                                                                                                                                                                                                                     getPlayerScoreLabelNum(playerNumber: int): int
                                                                                                                                                                                                                                                                                                                                     + setPlayerType(playerType: String)
                                                                                                                                                                                                                                                                                                                                                                                                                             setUnMovableHorse(horseNumber: in, horse: Horse)
 validateName(name1: String, name2: String): boolean
                                                                                                                                                                                                                                     + updateScoreEnterHome(horseNumber: int, playerNumber
                                                                                                                                                                                                                                                                                                                                     + getScoreLabelNum(): int
                                                                                                                                                                                                                                                                                                                                                                                                                             + moveHorseModelByColor(horseColor: String, horseNumber: int
 validateColorSet(): boolean
                                                                                                                                                                                                                                                                                                                                      getScore(): String
                                                                                                                                                                                                                                                                                                                                                                                                                            moveType: String)
 validAColorSet(color1: RadioButton, color2: RadioButton, color3: RadioButton, color4: RadioButton): boolean
                                                                                                                                                                                                                                    + updateScoreForHomeAndCaptureMove(playerNumber:
                                                                                                                                                                                                                                                                                                                                     + getIntScore(): int
                                                                                                                                                                                                                                                                                                                                                                                                                             moveHorseModel(moveType: String, horse: Horse)
 - setUpGame()
                                                                                                                                                                                                                                    int, scoreType: String)
                                                                                                                                                                                                                                                                                                                                      getPlayerColor(): String
                                                                                                                                                                                                                                                                                                                                                                                                                             - getHorseInfo(horseColor: String, horseNumber: int, information:
 - setNewPlayers()
                                                                                                                                                                                                                                     + getNextPlayerType(): String
                                                                                                                                                                                                                                                                                                                                     + updateScore(scoreType: String)
 setPlayer(name: TextField, playerName: Label, red: RadioButton, blue: RadioButton, green: RadioButton, yellow: RadioButton, playerScore: Label, labelOrder: int)
                                                                                                                                                                                                                                     getNextPlayerNumber(): int
                                                                                                                                                                                                                                                                                                                                     setScore(newScore: int)
                                                                                                                                                                                                                                                                                                                                                                                                                             getHorseInfo (information: String, horse: Horse)
 setPlayerInfo(playerName: Label, name: TextField, playerColor: String, playerNumber: int, labelOrder: int)
                                                                                                                                                                                                                                     getPlayerNumber(): int
                                                                                                                                                                                                                                                                                                                                                                                                                             checkCompleteGame(horseColor: String, horseNumber: int):
 + rollDice(event: ActionEvent)
                                                                                                                                                                                                                                     getPlayerNumber(horseColor: String): int
                                                                                                                                                                                                                                                                                                                                                                                                                            boolean
+ findFirstPlayer()
                                                                                                                                                                                                                                     - getFirstDice(): int
                                                                                                                                                                                                                                                                                                                                                                                                                             checkCompleteGame(horse: Horse): boolear
 + startTurn()
                                                                                                                                                                                                                                     getSecondDice(): int
                                                                                                                                                                                                                                                                                                                                                                 Score
                                                                                                                                                                                                                                     getTotalDice(): int
 dimPointings()
                                                                                                                                                                                                                                     checkADice(dice: int, selectedValue: String): boolean
 rollDice()
                                                                                                                                                                                                                                                                                                                                     - score: int
 · rollFirstDice(diceValue: int): RotateTransition
                                                                                                                                                                                                                                     setSelectedDice(selectedDice: String)

    rollSecondDice(diceValue: int): RotateTransition

                                                                                                                                                                                                                                     + getSelectedDice(): String
 getRotateTransition(diceValue: int, dice: ImageView, diceBtn: Button): RotateTransition
                                                                                                                                                                                                                                     setAllDiceUsed()
                                                                                                                                                                                                                                                                                                                                      updateScore(scoreType: String)
 rollADice(rt: RotateTransition)
                                                                                                                                                                                                                                     resetAllDiceUsed()
                                                                                                                                                                                                                                                                                                                                      resetScore()
                                                                                                                                                                                                                                     r getAllDiceUsedΩ· boolean
 - checkPlaver()
 displayPossibleDices(checkDice: boolean[])
                                                                                                                                                                                                                                     + getNextMove(horseNumber: int): int
                                                                                                                                                                                                                                     getCurrentPos(horseNumber: int): int
 · displayPossibleThreeDices(checkDice: boolean[], dice1Value: int, dice2Value: int, totalDice: int)
 - boolean checkFirstDice(firstDice: int, checkDice: boolean): boolean
                                                                                                                                                                                                                                     distantFromHomeArrival(horseNumber: int): int
 checkSecondDice(secondDice: int, checkDice: boolean): boolean
                                                                                                                                                                                                                                     rgetHorsesMovableStatus(): boolean∏

    checkTotalDice(totalDice: int. checkDice: boolean); boolean

                                                                                                                                                                                                                                     moveHorseByColor(horseColor: String, horseNumber: int,
 + firstDiceSelected(event: ActionEvent)
                                                                                                                                                                                                                                     noveType: String)
 + secondDiceSelected(event: ActionEvent)
                                                                                                                                                                                                                                     getMoveType(horseNumber: int): String
                                                                                                                                                                                                                                                                                                                                                                                                                                                            GameView
 + totalDiceSelected(event: ActionEvent)
                                                                                                                                                                                                                                     + getMoveType(): String∏
 displayPossibleMoves()
                                                                                                                                                                                                                                     + getCapturedHorseColor(capturingHorseNumber: int):
                                                                                                                                                                                                                                                                                                                                         - soundRegular, soundCapture, soundScore, soundGameOver: private
 · displayPossibleMoves(pointing1: ImageView, pointing2: ImageView, pointing3: ImageView, pointing4: ImageView)
                                                                                                                                                                                                                                                                                                                                          coordinate: int[][] = new int[88][2]
 + moveFirstBlue(event: ActionEvent)
                                                                                                                                                                                                                                     - getCapturedHorseNumber(capturingHorseNumber: int):
                                                                                                                                                                                                                                                                                                                                         - playSound: boolean = true
 + moveSecondBlue(event: ActionEvent)
 + moveThirdBlue(event: ActionEvent)
                                                                                                                                                                                                                                     getCapturedHorseNest(capturingHorseNumber: int): int
 + moveFourthBlue(event: ActionEvent)
                                                                                                                                                                                                                                     checkCompleteGame(horseColor: String, horseNumber:
                                                                                                                                                                                                                                                                                                                                          setCoordinate()
 + moveFirstYellow(event: ActionEvent)
                                                                                                                                                                                                                                                                                                                                         - setBlueCoordinate(homeGap: int, regularGap: int)
 + moveSecondYellow(event: ActionEvent)
                                                                                                                                                                                                                                     findHighestScore(): int
                                                                                                                                                                                                                                                                                                                                          setYellowCoordinate(homeGap: int, regularGap: int)
 + moveThirdYellow(event: ActionEvent)
                                                                                                                                                                                                                                                                                                                                          setGreenCoordinate(homeGap: int, regularGap: int)
 + moveFourthYellow(event: ActionEvent)
                                                                                                                                                                                                                                                                                                                                          setRedCoordinate(homeGap: int, regularGap: int)
 + moveFirstGreen(event: ActionEvent)
                                                                                                                                                                                                                                                                                                                                         - setNest(firstPlace: int, firstNest: int[], regularGap: int)
 + moveSecondGreen(event: ActionEvent)
                                                                                                                                                                                                                                                                                                                                         - setVerticallvUp(firstPlace: int, lastPlace: int, firstValue: int[], gap: int)
 + moveThirdGreen(event: ActionEvent)
                                                                                                                                                                                                                                                                                                                                         - setVerticallyDown(firstPlace: int, lastPlace: int, firstValue: int[], gap: int)
 + moveFourthGreen(event: ActionEvent)
                                                                                                                                                                                                                                                                                                                                          setHorizontallyUp(firstPlace: int, lastPlace: int, firstValue: int[], gap: int)
 + moveFirstRed(event: ActionEvent)
                                                                                                                                                                                                                                                                                                                                         - setHorizontallyDown(firstPlace: int, lastPlace: int, firstValue: int[], gap: int)
 + moveSecondRed(event: ActionEvent)
                                                                                                                                                                                                                                                                                                                                         - setMediaPlaver()
 + moveThirdRed(event: ActionEvent)
                                                                                                                                                                                                                                                                                                                                         + soundOff(musicOffBtn: Button, musicOnBtn: Button)
 + moveFourthRed(event: ActionEvent)
                                                                                                                                                                                                                                                                                                                                         + soundOn(musicOffBtn: Button, musicOnBtn: Button)
 - machinePlayerStartTurn()
                                                                                                                                                                                                                                                                                                                                          toSetUp2(setUp1: VBox, setUp2: VBox, player3Color: HBox, player4Color: HBox, numberOfPlayers: int)
 - machineDoneTurn()
                                                                                                                                                                                                                                                                                                                                         - setVisiblePlayer34(component1: HBox_component2: HBox_numberOfPlayer: int)
 checkSecondMove()
                                                                                                                                                                                                                                                                                                                                          setVisiblePlayer34Boxes(component1: HBox, component2: HBox, status1: boolean, status2: boolean)
 - moveHorseFinalTime()
                                                                                                                                                                                                                                                                                                                                          setDisableNameTextField(name1: TextField, name2: TextField, name3: TextField, name4: TextField, numberOfHumanPlayers: int)
 checkTheDiceLeft()
                                                                                                                                                                                                                                                                                                                                          setDisableNames(name1: TextField, name2: TextField, name3: TextField, name4: TextField, status1: boolean, status2: boolean, status3: boolean, status4: boolean)
 - moveTheFarthest(): boolean
                                                                                                                                                                                                                                                                                                                                          toSetUp1(setUp1: VBox, setUp2: VBox
 - findFarthestMoveHorse(moveType: String[]): int
                                                                                                                                                                                                                                                                                                                                          selectAColor(selectedBtn: RadioButton, nonSelectedBtn1: RadioButton, nonSelectedBtn2: RadioButton, nonSelectedBtn3: RadioButton)
 checkEnterHome(enterType: String): boolean
                                                                                                                                                                                                                                                                                                                                          restartGame(endGamePane: StackPane, dice2Image: ImageView, dice1: Button, dice2: Button, diceTota: Button)
                                                                                                                                                                                                                                                                                                                                           resetDiceImg(dice2Image: ImageView, dice1: Button, dice2: Button, dice1otal: Button)
 checkValidMove2Dices(requiredMoveType: String): boolean
                                                                                                                                                                                                                                                                                                                                          setHorseBlue(horse1: ImageView, horse2: ImageView, horse3: ImageView, horse4: ImageView, pointing1: ImageView, pointing2: ImageView, pointing3: ImageView, pointing4: ImageView, status: boolean)
 - checkValidMove3Dices(requiredMoveType: String): boolean
                                                                                                                                                                                                                                                                                                                                          setHorseYellow(horse1: ImageView, horse2: ImageView, horse3: ImageView, horse4: ImageView, pointing1: ImageView, pointing2: ImageView, pointing3: ImageView, pointing4: ImageView, status: boolean)
                                                                                                                                                                                                                                                              Application
 checkMove(allMoveTypes: String[], requiredMoveType: String): boolean
                                                                                                                                                                                                                                                                                                                                          setHorseGreen(horse1: ImageView, horse2: ImageView, horse3: ImageView, horse4: ImageView, pointing1: ImageView, pointing3: ImageView, pointing3: ImageView, pointing4: ImageView
 moveHorseByColor(horseColor: String, playerNumber: int, horseNumber: int)
                                                                                                                                                                                                                                                                                                                                          setHorseRed(horse1: ImageView, horse2: ImageView, horse3: ImageView, horse4: ImageView, pointing1: ImageView, pointing2: ImageView, pointing3: ImageView, pointing4: ImageView, status: boolean)
 moveHorseByIndex(horseColor: String, playerNumber: int, horseNumber: int, horse1: ImageView, pointing1: ImageView, horse2: ImageView, pointing2: ImageView, pointing3: ImageView
                                                                                                                                                                                                                                                                                                                                          rceateNewGame(setUpInterface: StackPane, setUp1: VBox, setUp2: VBox, endGamePane: StackPane)
horse3: ImageView, pointing3: ImageView, horse4: ImageView, pointing4: ImageView)
                                                                                                                                                                                                                                                                                                                                          - alertSetUp2(alertMessage: Label)
 + moveHorse(horseColor: String, horseNumber: int, playerNumber: int, horse: ImageView, pointing: ImageView)
                                                                                                                                                                                                                                                                                                                                          + startNewGame(setUpInterface: StackPane, score3: HBox, score4: HBox, numberOfPlayer: int, alertMessage: Label, dice2Image: ImageView, dice1: Button, dice2: Button, diceTotal: Button
 - moveHorsePreparation()
                                                                                                                                                                                                                                                                                                                                          setPlayerScoreNameColor(playerName: Label, playerScore: Label, playerColor: String, name: String)
 + disableHorse(horseColor: String, status: Boolean)
                                                                                                                                                                                                                                                                                                                                          setDisableDices(firstDiceBtn: Button, secondDiceBtn: Button, totalDiceBtn: Button, rollDice: Button)
                                                                                                                                                                                                                                                            CaNguaGame
 countMove(horseNumber: int): int
                                                                                                                                                                                                                                                                                                                                          disableDiceBtn(firstDiceBtn: Button, secondDiceBtn: Button, totalDiceBtn: Button, rollDice: Button, status: Boolean
 + regularMove(horse: ImageView, pointing: ImageView, newPosition: int, currentPos: int)
                                                                                                                                                                                                                                                                                                                                          setVisiblePointings(pointing1: ImageView, pointing2: ImageView, pointing3: ImageView, pointing4: ImageView, status1: boolean, status2: boolean, status3:boolean, status4: boolean)
 enterHome(horse: ImageView, pointing: ImageView, horseNumber: int, playerNumber: int)
                                                                                                                                                                                                                                                                                                                                          setDiceImage(diceValue: int, dice: ImageView)
                                                                                                                                                                                                                                             + start(Stage primaryStage) throws
 · upperHome(horse: ImageView, pointing:; ImageView, horseNumber: int, playerNumber: int)
                                                                                                                                                                                                                                                                                                                                          moveHorseOneByOne(horse: ImageView, newPosition: int, point: ImageView, currentPos: int)
                                                                                                                                                                                                                                             Exception: void
 moveToHomePos(horse: ImageView, pointing: ImageView, horseNumber: int)

    moveHorseFromPosition0(currentPos: int. horse: ImageView, newPosition: int)

 + updateScoreForPlayers(scoreType: String, horseNumber: int, playerNumber: int)
                                                                                                                                                                                                                                                                                                                                         incrementMoveHorse(horse: ImageView, currentPos: int, moveNumber: int)

    setScore(labelNumber: int. score: String)

                                                                                                                                                                                                                                                                                                                                          playRegularMoveSound()
 + captureHorse(horse1: ImageView, pointing1: ImageView, horseNumber: int, currentPosOfCapturingHorse: int, playerNumber: int)
                                                                                                                                                                                                                                                                                                                                          moveHorse(horse: ImageView, newPosition: int, point: ImageView)
 captureBlueHorse(horse1: ImageView, pointing1: ImageView, horseNumber: int, currentPosOfCapturingHorse: int, playerNumber: int)
                                                                                                                                                                                                                                                                                                                                          regularMove(horse: ImageView, newPosition: int, point: ImageView, currentPos: int)
 captureYellowHorse(horse1: ImageView, pointing1: ImageView, horseNumber: int, currentPosOfCapturingHorse: int, playerNumber: int)
                                                                                                                                                                                                                                                                                                                                          captureHorse(horse: ImageView, pointing1: ImageView, capturedHorse: ImageView, pointing2: ImageView, newPosition: int, nest: int, currentPosOfCapturingHorse: int)
 captureGreenHorse(horse1: ImageView, pointing1: ImageView, horseNumber: int, currentPosOfCapturingHorse: int, playerNumber: int)
                                                                                                                                                                                                                                                                                                                                         + moveHome(horse: ImageView, newPlace: int, point: ImageView)
 captureRedHorse(horse1: ImageView, pointing1: ImageView, horseNumber: int, currentPosOfCapturingHorse: int, playerNumber: int)
                                                                                                                                                                                                                                                                                                                                          HisableHorse(horse1: ImageView, horse2: ImageView, horse3: ImageView, horse4: ImageView, status: Boolean)
 captureHorseOperation(horse1: ImageView, horsePointing1: ImageView, horseNumber: int, horseCaptured1: ImageView, pointing1: ImageView, horseCaptured2:
                                                                                                                                                                                                                                                                                                                                         + undateRegularMoye(actionBox: VBox, enterHomel abel: Label, leaveNestLabel; Label, regularMoyeLabel; Label, unperHomel abel: Label, capturedBox: VBox)
ImageView, pointing2: ImageView, horseCaptured3: ImageView, pointing3: ImageView, horseCaptured4: ImageView, pointing4: ImageView, capturedHorseColor:
                                                                                                                                                                                                                                                                                                                                         + updateEnterHome(actionBox: VBox, enterHomeLabel: Label, leaveNestLabel: Label, regularMoveLabel: Label, upperHomeLabel: Label, capturedBox: VBox)
String, capturingHorseCurrentPos: int, playerNumber: int)
                                                                                                                                                                                                                                                                                                                                          + updateLeaveNest(actionBox: VBox, enterHomeLabel: Label, leaveNestLabel: Label, regularMoveLabel: Label, upperHomeLabel: Label, capturedBox: VBox)
 + checkForCompleteGame(horseColor: String, horseNumber: int, playerNumber: int)
                                                                                                                                                                                                                                                                                                                                          updateUpperHome(actionBox: VBox, enterHomeLabel: Label, leaveNestLabel: Label, regularMoveLabel: Label, upperHomeLabel: Label, capturedBox: VBox)
 endGame(winner: String)
                                                                                                                                                                                                                                                                                                                                          updateCaptured(actionBox: VBox, enterHomeLabel: Label, leaveNestLabel: Label, regularMoveLabel: Label, upperHomeLabel: Label, capturedBox: VBox
 getPlayerWithHighestScore(): String
                                                                                                                                                                                                                                                                                                                                         + updateGameStatus( actionBox: VBox, correctMoveType: Label, moveType2: Label, moveType3: Label, moveType4: Label, moveType5: VBox)
 - doneMove()
                                                                                                                                                                                                                                                                                                                                         + endGame(winner: String, completePlayer: Label, highestScorePlayer: Label, nameOfHighestScorePlayer: String, endGamePane: StackPane)
 doneTurn()
                                                                                                                                                                                                                                                                                                                                          continueGame(confirmQuitBox: StackPane)
 + playAgain(ActionEvent event)
                                                                                                                                                                                                                                                                                                                                         + confirmQuitGame(confirmQuitBox: StackPane)
 + toEndGame(ActionEvent event)
                                                                                                                                                                                                                                                                                                                                         + toVietnamese(toVNBtn: Button, vietnameseLanguageBox: ChoiceBox, englishLanguageBox: ChoiceBox)
 + continueGame(event: ActionEvent)
                                                                                                                                                                                                                                                                                                                                         + toEnglish(toVNBtn: Button, vietnameseLanguageBox: ChoiceBox, englishLanguageBox: ChoiceBox)
 + confirmQuitGame(event: ActionEvent)
 + quitGame(event: ActionEvent)
 + toVietnamese(event: ActionEvent)
 + toEnglish(event: ActionEvent)
```

- changeLanguage()

Horse