~SudokuGame: SudokuGame

~newPlayer: Player

~playerDataBase: PlayerDataBase

~startSudoku: long

~initNum: int

#onCreated(savedInstanceState: Bundle):

SudokuActivity extends AppCompatActivity

void

+endSudoku(view: View): void

+getScore(): int

Sudoku End Screen Activity

extends

AppCompatActivity

~newPlayer: Player

~playerDataBase: PlayerDataBase

~temp: int

~timeInSeconds: double

#onCreated(savedInstanceState: Bundle): void

SudokuEnterGameActivity

extends

AppCompatActivity

~newPlayer: Player

#onCreated(savedInstanceState: Bundle): void

+chooselv1(view View): void +chooselv2(view View): void +chooselv3(view View): void

+chooselv4(view View): void

## SudokuGame

~sudoku: HashMap<ArrayList<Integer>, Integer>

-newPlayer: GeneralPlayer

~SudokuGame(player: GeneralPlayer, sudoku: HashMap<ArrayList<Integer>, Integer>): void

-getSudokuDimension():ArrayList<ArrayList<ArrayList<Integer>>>

-getThreeByThree(a:int,b:int): ArrayList<ArrayList<Integer>>

-checkThreeByThree(input: int, x: int, y: int, s: HashMap<ArrayList<Integer>, Integer>): boolean

-checkCol: (input: int, x: int, y: int, s: HashMap<ArrayList<Integer>, Integer>): boolean

-checkRow: (input: int, x: int, y: int, s: HashMap<ArrayList<Integer>, Integer>): boolean

~insert: (input: int, x: int, y: int, s: HashMap<ArrayList<Integer>, Integer>): boolean

~isInRange: (input: int): boolean

## Sudoku Game Library

-<u>lv1row1-lv4row9</u>: int[]

+level: int

~gameplaying: HashMap<ArrayList<Integer>,

Integer>

~SudokuGameLibrary(level: int): void

-toHM(s: int[][]): HashMap<ArrayList<Integer>,

Integer>