CRC (Class-Responsibility-Collaboration card)

Class name: **GameObject**	Subclasses: UIElement, CameraController, Collectable, NPC,TileMap,Player,Printer,ExamPage,Screen related classes, Bob
Responsibilities	**Class Collaborations (other classes):**
● Store object's position ● Define update behaviour for game object ● Manage cleanup of game objects ● Check for supported component types	● BaseComponent ● Engine

Class name: **UIElement**	Subclasses: GameTimer Superclass: GameObject
Responsibilities	**Class Collaborations (other classes):**
● Handle the position of UI elements on the screen	

Class name: **Achievements**	Superclass: UIElement
Responsibilities	**Class Collaborations (other classes):**
● Manage and track player achievements ● Display achievement information on the UI	● UIElement

Class name: **CameraController**	Superclass: GameObject
Responsibilities	**Class Collaborations (other classes):**
● Follow the game target by managing camera movement	● GameObject

Class name: **Collectable**	**Subclasses:** SpeedCollectable, Item,Beer **Superclass:** GameObject
Responsibilities	**Class Collaborations (other classes):**
● Represent objects that the player can collect	

Class name: **SpeedCollectable**	**Superclass:** Collectable
Responsibilities	**Class Collaborations (other classes):**
● Increase player speed when collected	● Player

Class name: **RaspberryPi**	**Superclass:** Collectable
Responsibilities	**Class Collaborations (other classes):**
● Represent Raspberry PI as a collectable ● Only visible and collectible after reveal() is called ●On pickup, provide message and sound feedback	● Player ● Assets ● GameMessageHandler ● Game

Class name: **Item**	**Superclass:** Collectable **Subclasses:** Key
Responsibilities	**Class Collaborations (other classes):**
● Differentiate between item type	

Class name: **Key**	Superclass: Item
Responsibilities	**Class Collaborations (other classes):**
●Give the key to the player when collected	● Player

Class name: **GameTimer**	Superclass: UIElement
Responsibilities	**Class Collaborations (other classes):**
● Keep track of play time ● Trigger lose screen if timer runs out ● Pause/Resume time when game is paused/resumed	● Game ● EventCounter

Class name: **TileMap**	Superclass: GameObject
Responsibilities	**Class Collaborations (other classes):**
● Generate collision data from the tile map ● Render the game map using the camera ● Create entities from the tile map	● Engine ● Game ● CameraComponent

Class name: **NPC**	Superclass: GameObject
Responsibilities	**Class Collaborations (other classes):**
● Check player interaction and required items ●Trigger game progression based on player interaction	● Player ● Game

Class name: **Bob**	Superclass: GameObject
Responsibilities	**Class Collaborations (other classes):**
● Represent the Bob enemy character ●Handle Bob movement and behaviour	● Player ● BobManager

Class name: **KingBob**	Superclass: Enemy
Responsibilities	**Class Collaborations (other classes):**
● Represent the King Bob enemy (Assessment 2 negative event/UR_Events) ● Store deposit location and waypoint route	● Player ● MoveBetweenWaypointsState ● Assets

Class name: **Player**	Superclass: GameObject
Responsibilities	**Class Collaborations (other classes):**
● Handle player movement and input ● Interact with the game world ● Pick up items	●Item ●Collectable ●EventCounter

Class name: **Beer**	Superclass: Collectable
Responsibilities	**Class Collaborations (other classes):**
● Cause player confusion when collected	●Player ●GameMessageHandler

Class name: **ExamPage**	Superclass: GameObject
Responsibilities	**Class Collaborations (other classes):**
●Move and interact with the player as a projectile	●Player ●Engine

Class name: **Printer**	**Superclass:** GameObject
Responsibilities	**Class Collaborations (other classes):**
●Shoot exam pages at regular intervals	●ExamPage ●Engine

Class name: **MenuScreen**	**Superclass:** BaseMenuScreen
Responsibilities	**Class Collaborations (other classes):**
●Display the main menu interface ●Handle user actions on the main menu	●Game ●LevelScreen

Class name: **PauseScreen**	**Superclass:** BaseMenuScreen
Responsibilities	**Class Collaborations (other classes):**
●Display the pause menu ●Allow the player to resume, restart, or quit the game	●Game ●LevelScreen

Class name: **LevelScreen**	**Superclass:** Screen
Responsibilities	**Class Collaborations (other classes):**
●Set up and manage the main game level	●Game ●Engine ●TileMap ●Player

Class name: **WinScreen**	Superclass: BaseMenuScreen
Responsibilities	**Class Collaborations (other classes):**
● Display the win screen and final game results	●Game ●LevelScreen ●MenuScreen ●EventCounter