**EnemyCar**

The EnemyCar class extends Car and implements all Methods from Car and Object. Also, it implements methods and attributes for lane changes

Extends: Car  
Implements: -  
Direct Subclasses: -

**Attributes:**

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| private static String | imagePath |
| private int | track |
| private int | targetTrack |
| private double | speed |
| private int | xEnd |
| private boolean | changing |

**Constructors:**

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| EnemyCar(double x, double y, StreetManager streetManager) |
| EnemyCar(double x, double y, StreetManager streetManager,  double horizontalSpeed, double verticalSpeed) |
| EnemyCar(double x, double y, StreetManager streetManager,  double horizontalSpeed, double verticalSpeed, int track) |

**Public functions:**

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| boolean | changeTrack(int targetTrack, double speed) |
| int | getNewRandomTrack() |
| int | getTrack() |
| boolean | isChanging() |
| void | setTrack(int track) |
| void | update() |

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| Methods inherited from class Object |
| checkHitboxIntersection, checkHitboxIntersection, draw, getBoundingRect, getHeight, getImage, getWidth, getX, getY, height, hide, isVisible, move, moveHorizontal, moveRelative, moveRelativeHorizontal, moveRelativeVertical, moveTo, moveVertical, setImage,setImage, setVisible, setX, setY, show, width, x, y |

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| Methods inherited from class Car |
| setHorizontalSpeed, getHorizontalSpeed, setVerticalSpeed, getVerticalSpeed, setSpeed, getHitbox |

**Private Functions:**

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| void | initVars(StreetManager streetManager,  double horizontalSpeed, double verticalSpeed, int track) |

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| Methods inherited from class Object |
| initVars, setHeight, setWidth, updateDimensions |

**Detailed Description:**

**Attributes:**

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| **imagePath** |
| private static String imagePath = “res/car.png”  Stores the path to a picture of the EnemyCar.  By default, this property is “res/car.png”. |

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| **track** |
| private int track = -1  Stores the current track of the instance if it is -1, the track is not defined.  By default, this property has a value of -1.  **Access methods:**   |  |  | | --- | --- | | void | setTrack(int track) | | int | getTrack() | |

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| **targetTrack** |
| private int targetTrack  Caches the target track if a lane change is initialized. |

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| **speed** |
| private double speed  Caches the speed for the lane change if it is initialized. |

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| **xEnd** |
| private int xEnd  Caches the horizontal position, which is the end of the lane change. |

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| **changing** |
| private boolean changing = false  Caches, if EnemyCar is changing its track. A new lane change can only get initialized if this property is false.  By default, this property is false.  **Access methods:**   |  |  | | --- | --- | | boolean | isChanging() | |

**Public Functions:**

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| **changeTrack** |
| public boolean changeTrack(int targetTrack, double speed)  Initialize and start lane change if no lane change is active. Defines horizontal end value with targetTrack (and streetManager) and the horizontal speed.  **Parameters:**  targetTrack – used to define the new horizontal position of the instance (when change finished)  speed – horizontal speed (additive to horizontal base speed)  **Returns:**  true – if lane change was successful initialized  false – if lane change wasn’t initialized |

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| **getNewRandomTrack** |
| public int getNewRandomTrack()  Get a new track, based on count of horizontal tracks (StreetManager.getHorizontalStreetCount).  **Returns:**  Returns a random track. |

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| **update** |
| public void update()  This method has to be called in the game loop (maybe indirectly over another method) and moves the EnemyCar for his horizontal and vertical speed, relative to the streets of the StreetManager. |

**Private Functions:**

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| **initVars** |
| public void initVars(double x, double y, boolean visible)  Assign the passed values to the instance values (called by constructor) |