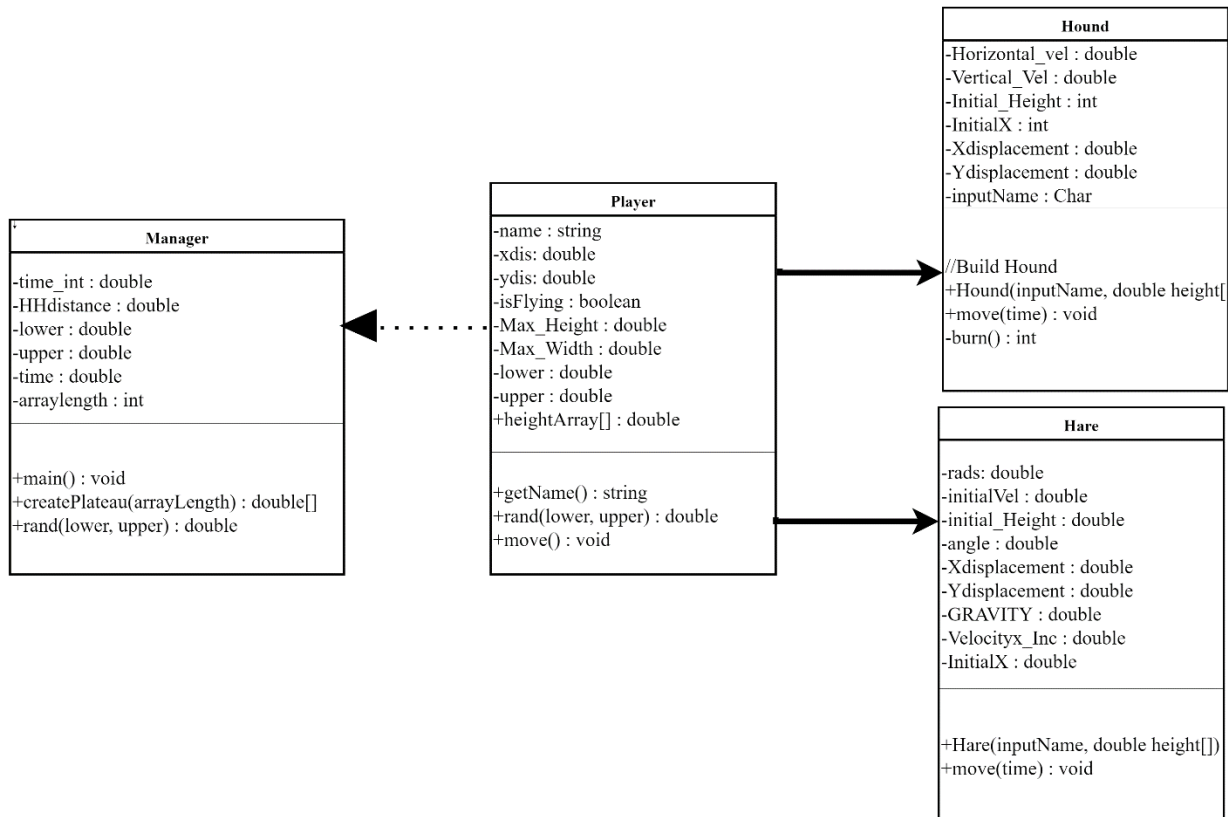


## CS225 Homework 6

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The UML diagram describes the Hound and Hare program as follows. The Manager class initially sets the time interval on which the program will run on and creates the Plateau system. The createPlateau method takes in the arrayLength variable and returns a double area full of heights that objects, Hare, and Hound, will stop at when met. Additionally, the rand method develops random numbers based on certain upper and lower limits for the createPlateau method. Within the main method, the objects Hound and Hare are created, using the parent class "Player". The player class contains all needed variables to determine the hare and hound's limits of movements, setters, and getters for such variables of movement and displacement of the objects and needed conditional Boolean statements to determine if the object Hare or Hound is still moving. The getName method takes in the name inputted from the main method from the Manager class. The move method is a placeholder method for the hare and hound exclusive methods. The Hare and Hound are then made and are children of the player class. Using the specific public move methods of each hare and hound, they can simulate projectile movement over set plateaus referenced from the Manger class. Within the Hound's move method, however, the burn method is used to simulate the control of the Hound while in the air. When the burn method is called, the Hound may move upwards a certain y displacement. Both Hare and Hound's move methods inherit "heightArray[]" and time" variables to simulate movement over specific plateaus and what time interval it is.