

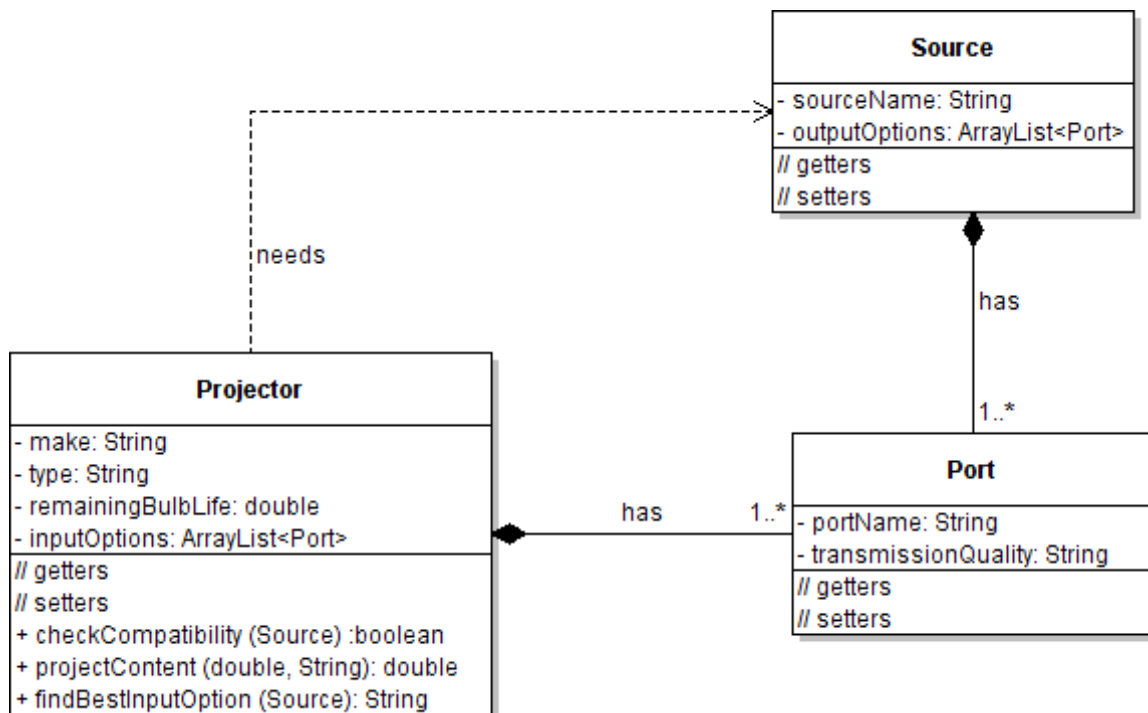
Classes: Projector, Source, Port

Projector object can only be created by specifying make, type (DLP or LCD) and list of input port names it provides. For a new projector, initially the remaining bulb life will always be 2000 hrs.

Source objects (like VCR, DVD Player, Laptop, PC) can only be created by passing the source name and list of output port names it provides.

Port object can only be created by providing its name. The transmission quality for possible port types is as follows:

VGA – Low, SVideo – Medium, Component – High, HDMI - Excellent



The Projector class [public] has the following behaviors:

- checkCompatibility:** This behavior accepts a Source object as input and checks if there is at least one similar port available on Projector that can be used for video transmission. If present, returns true, else returns false.
- projectContent:** This behavior accepts a duration of the presentation in hours and the mode (Low or Standard) in which the projector is operated, and then updates and returns the remaining bulb life of the projector. For Standard mode, bulb life reduces by the same amount given as duration. For Low mode, bulb life reduces by half the amount given as duration.
- findBestInputOption:** This behavior accepts a Source object as input, and returns the port name that can be used to transmit video with the best quality possible.

Note: Data and business validations need not be handled