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**2.1. Inheritance and references to the base class**

**UML**

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| --- |
| Abstract Figure |
| # WHITE: int = 0  #BLACK: int = 1  #color: int  #identifier: String |
| +getColor(): int  +whoAmI(): void  +abstract move(Position origin, Position destination): boolean |

|  |
| --- |
| Position |
| -row: int  -column: int |
| +getRow(): int  +getColumn(): int  +setRow(int row): void |

|  |
| --- |
| Castle |
|  |
|  |

|  |
| --- |
| Queen |
|  |
|  |

**QUESTIONS**

* Which methods can be really invoked on the collection elements?

R: Only the methods contained in class Collection.

* If castle class has implemented void castle() method, could it be possible to invoke that method from a reference to the base class? Why?

R: No, it is not possible because the base class is Figure, an abstract class.

* What should we have to do in order to be able to use the precious void castle() method from an object of Castle class that is pointed by a reference to Figure class?

R: We have to instantiate an object of Castle class.

* What should we do to know exactly to which class belongs every object pointed by a reference to the base class?

R: we can use the reserved word in Java: instance of.