1.Why is it important to declare fields in a class as private and provide public getter and setter methods?

It enforces encapsulation which means the internal state of an object is protected. This maintains data integrity and prevents unauthorized modification of the fields.

Attributes- private password

Method-changing an old password

Public, private and protected

2.What are the advantages of using a constructor to initialize an objects fields?

There are several advantages including enforcing data integrity by ensuring all necessary fields are set when an object is created, improving the codes readability and allows for flexible initialization based on parameters and preventing accidental use of uninitialized fields.

3.How would you explain the purpose of a class in Java to someone unfamiliar with programming?

A class is the blueprint or template for creating objects in a program.

4.How could you ensure that the score of a player can never be negative and where would you implement this logic?

You can use conditional checks to check that if the score attempts to go below 0, then it can set the score to 0.

5.Beyond games, where else might you use a similar class structure with fields and methods in real world programming?

Customer management systems, Banking apps, Healthcare systems, Document management systems and project management tools.