

What are the four pillars of Object-Oriented Programming? Explain each pillar.

- Abstraction: This pillar emphasizes using simplicity to represent complex concepts.
- Inheritance: Allows objects or classes to inherit from parent classes.
- Encapsulation: This involves keeping fields private, then using public methods to access them. This way, objects can be reused without system wide access.
- Polymorphism: This pillar allows for code wording to mean different things depending on the context it is used in.

What is unit testing and why is it important?

Unit testing is the process of testing units of code to see if everything is functioning properly without any hiccups to the system. It can improve the performance and quality of applications, make debugging easier, and can be a great way to document code so that others can understand how the code functions.

Works Cited:

[https://stackify.com/oops-concepts-in-java/
#:~:text=The%20main%20ideas%20behind%20Java's,
%2C%20encapsulation%2C%20inheritance%20and%20polymorphism.](https://stackify.com/oops-concepts-in-java/#:~:text=The%20main%20ideas%20behind%20Java's,%2C%20encapsulation%2C%20inheritance%20and%20polymorphism.)

[https://cswsolutions.com/blog/posts/2022/december/5-benefits-of-unit-testing-and-why-you-should-care/
#:~:text=Unit%20testing%20is%20an%20important,until%20it%20is%20too%20late.](https://cswsolutions.com/blog/posts/2022/december/5-benefits-of-unit-testing-and-why-you-should-care/#:~:text=Unit%20testing%20is%20an%20important,until%20it%20is%20too%20late.)