* the main advantages of OOP over POP.

1. Modularity: -In OOP, code is divided into objects (classes), each handling its own data and behavior. This makes code easier to manage, understand, and update.
2. Reusability: - OOP supports reuse of code through **inheritance**. Once a class is written, it can be reused in multiple programs or extended to create new ones.
3. Encapsulation: - Data and functions are bundled together in classes. This hides internal details and protects data from unintended changes (using private access).
4. Abstraction: - Only essential features are exposed to the user, hiding complex implementation. This simplifies interaction with the object.
5. Easy Maintenance: - OOP makes debugging and updating code easier because each object is independent and changes in one class usually don’t affect others
6. Scalability: - OOP is better suited for large-scale software systems as it allows for better structure and organization of code.
7. Flexibility and Extensibility: - New features can be added easily by creating new classes or extending existing ones (via inheritance or polymorphism).
8. Real-world Mapping: - OOP models real-world entities as objects, making it more intuitive to design and develop software that reflects actual use-cases.