

1. What factors determine whether a programming language is secure or not?

- a. Memory safety: programming languages that have garbage collection help prevent memory leaks and buffer overflows.
- b. Type safety: strongly-typed programming languages prevent type errors.
- c. Built-in security features like encryption libraries, secure handling of user inputs

2. Could Python be classed as a secure language? Justify your answer.

- 1. Yes, Python is a secure language because it has most of the features needed for a secure language such as memory safety, built-in security, etc. Although Python is dynamically typed, it enforces type checking at runtime.

3. Python would be a better language to create operating systems than C. Discuss

While Python offers many benefits, it is not better than C for creating operating systems. While C is a low-level language, Python is a high level language. Low-level programming languages are better for creating operating systems. C provides direct access for memory manipulation which is crucial when creating operating systems, while python doesn't. Python does automatic memory management (garbage collection).