What are the significant features of Java?

The significant features of Java are:-

1. **Simple:-** Java is easy to learn and its syntax is simple, clean, and easy to understand.
2. **Object Oriented:-** Java is an object-oriented programming language. Everything in Java is in the form of an object. Object-oriented means we organize our software as a combination of different types of objects that incorporates both data and behavior. Object-oriented programming (OOPs) is a methodology that simplifies software development and maintenance by providing some rules.
3. **Platform Independent:-** Unlike other programming languages such as C, C++, etc. which are compiled into platform-specific machines. Java is guaranteed to be a “write-once and run-anywhere” language. On compilation, the Java program is compiled into bytecode. This bytecode is platform-independent and can be run on any machine, plus this bytecode format also provides security. Any machine with a Java runtime environment can run Java programs because Java is a platform-independent language.
4. **Secure:-** When it comes to security, Java is always the first choice. With java's secure features it enables us to develop a virus-free, temper-free system. Java program always runs in a Java runtime environment with almost null interaction with the system OS, hence it is more secure. The Java run-time environment uses a bytecode verification process to ensure that code loaded over the network does not violate Java security constraints.

5. **Multi-Threading:-** Java multithreading feature makes it possible to write programs that can do many tasks simultaneously. The benefit of multithreading is that it utilizes the same memory and other resources to execute multiple threads at the same time like while typing, grammatical errors are checked along.
6. **Dynamic:-** Java is a dynamic language. It supports the dynamic loading of classes. It means classes are loaded on demand. Java supports dynamic compilation and automatic memory management (garbage collection).
7. **Portable:-** When we run a Java Program then the compiler compiles the code into bytecode and Java bytecode can be carried to any platform.
8. **Robust:-** Robust simply means strong. Java is designed to eliminate certain types of programming errors. Java is strongly typed, which allows extensive compile-time error checking. It doesn't support memory pointers, which eliminates the possibility of overwriting memory and corrupting data.

Note:- Java is also known for High Performance because Java code is compiled into bytecode which is highly optimized by the Java compiler so that Java virtual machine (JVM) can execute Java applications at full speed.