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| **Feature** | **Kotlin** | **Java** |
| **Origin** | Developed by JetBrains | Developed by Sun Microsystems (now Oracle), |
| **Type of Language** | Concise, expressive, and fully interoperable with Java | Statically typed, verbose syntax |
| **Null Safety** | Built-in null safety features | Null safety is not inherent. |
| **Extension Functions** | Supports extension functions | There is no direct support for extension functions. |
| **Smart Casts** | Smart casts for automatic type casting | It requires explicit casting in many cases. |
| **Default Arguments** | Allows functions to have default arguments | Default arguments are not supported. |
| **Coroutines** | Supports native coroutines for asynchronous programming. | Lacks built-in support for coroutines |
| **Interoperability** | Fully interoperable with Java, you can use Java libraries seamlessly. | Interoperability, but with some limitations |
| **Static Members** | There is no concept of static members. | Utilizes static members |
| **Lambda Expressions** | Similar syntax for lambdas | Introduced lambda expressions in Java 8 |
| **Properties** | Supports concise property syntax | Uses getter and setter methods for properties. |
| **Type Inference** | Enhanced type inference system | Requires explicit type declarations |
| **Smart Casts** | Provides smart casts for type checking. | Requires explicit casting in many scenarios. |
| **Functional Programming** | Emphasizes functional programming principles | Functional programming features were introduced gradually. |
| **Tool Support** | Good support in IntelliJ IDEA and Android Studio | A broad range of IDEs are available, including IntelliJ IDEA, Eclipse, etc. |
| **Community Adoption** | Gaining popularity rapidly, especially in Android development. | Long-established, widely used in enterprises and various domains |
| **Official Android Language** | Officially supported languages for Android development | Traditionally used for Android development |