Java Features

Java 8 new features :-
1. Enabled functional programming via lambda expressions.
2. Lambda Expression
3. Functional Interfaces.
4. Default Methods and Static Methods.
5. Predefined Functional Interfaces.
6. Double Colon Operator (::)
7. Streams.
8. Date and Time APIs OR JODA APIs
9. Optional Class.
10. Nashorn Java Script Engine. etc.

Java 9 new features :-
1. JShell :- Play ground for java developer to become use to with java.
2. JPMS (Java platform module system) :- Dividing a complete jar in small-2 modules.
3. JLINK (Java linker) :- Creating a custom JRE.
4. HTTP2 Client APIs :- Send HTTP request to WebServer.
5. Process API Updates :- Working with processor.
6. Private method in Interface :- Code reliability.
7. Try with resources enhancement :- Reuse already created resources.
8. Immutable collection via factory methods
9. Stream API enhancement
10. Diamond operator(<>) enhancement for inner classes.
11. @SafeVarargs Annotation :-
12. G1GC
13. Reactive Programming Support

Java 10 new features :-
1. var
2. Collector API enhancment
3. Container Awarenes
4. orElseThrow() in Optional
5. copyOf(Collection c) in List , Map , Set

6. Java based JIT compiler
7. Added Root certificates for more security

Java 11 new features :-
1. Running java file in a single command
2. String APIs enhancments
3. var support in lambda expression.
4. HTTP2 client standardization
5. Reflection APIs enhancement for Nested classes.
6. Epsilon OR No-Op GC
7. ZGC
8. Reading & writing from/to files
9. Removed some modules as part of JDK
10. Flight Recorder
11. Mission Control
12. Deprecated Nashron Java Script Engine
13. TLS 1.3 implementation.
14. ChaCha20 and Poly1305 Cryptography algorithm implementation.

Java 12 new features :-
1. Support of both switch statement and expression
2. String APIs enhancement : indent(), transform()
3. Constant APIs support
4. Shenandoah GC
5. Abortable Mixed Collection For G1GC
6. Return unused committed memory from G1.
7. Micro bench marking suite.

Java 13 new features :-
1. Support of yield keyword in switch expression to return a value.
2. Return unused committed memory form ZGC.
3. Text Blocks (String Content Block)

Java 14 new features :-
1. Helpful NullPointerException information.
2. Instanceof pattern check.

3. Record.

Java 15 new features :-
1. Sealed classes and interfaces.
2. Enhancements in Record: allowed local records.

Java 16 new features :-
1. Stream.toList();
2. Enhancement in Record: we can use records in inner classes as well.
3. Date time format enhancement: Added "B".
4. Sealed classes/interfaces enhancements.
5. Default method invocation (In interface) via Proxy class.

Java 17 new features :-
1. Random Generator.
2. Switch expression enhancement: Supported super class in switch.