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JVM(Java Virtual Machine)

- (.class) OS (JIT
) .
- (JVM) (JVM) .
- JVM : https://docs.oracle.com/javase/specs/jvms/se11/html/
- JVM : , , Azul,
-

```
Java11      Jre
Java9
```

JRE, JDK

11 open-jdk

JVM

```
    ,       , JRuby, Jython,      , …
```

JVM

- :
- : ( )
- : ,

-
  - , ( )
  -
-
  - ,

, PC(PC registers),

-

(Execution Engine)

- :
- JIT(Just In Time) : ,

JIT .

- GC(Garbage Collector): .

```
$> javap -c ${                }
Compiled from "CodeManipulationApplication.java"
public class com.repia.java.codemanipulation.CodeManipulationApplication {
  public com.repia.java.codemanipulation.CodeManipulationApplication();
    Code:
       0: aload_0
       1: invokespecial #8                  // Method
java/lang/Object."<init>":()V
       4: return

  public static void main(java.lang.String[]);
    Code:
       0: ldc           #1                  // class
com/repia/java/codemanipulation/CodeManipulationApplication
       2: aload_0
       3: invokestatic  #16                 // Method
org/springframework/boot/SpringApplication.run:(Ljava/lang/Class;[Ljava/lang
/String;)Lorg/springframework/context/ConfigurableA
pplicationContext;
       6: pop
       7: return
}
```

, manipulation