

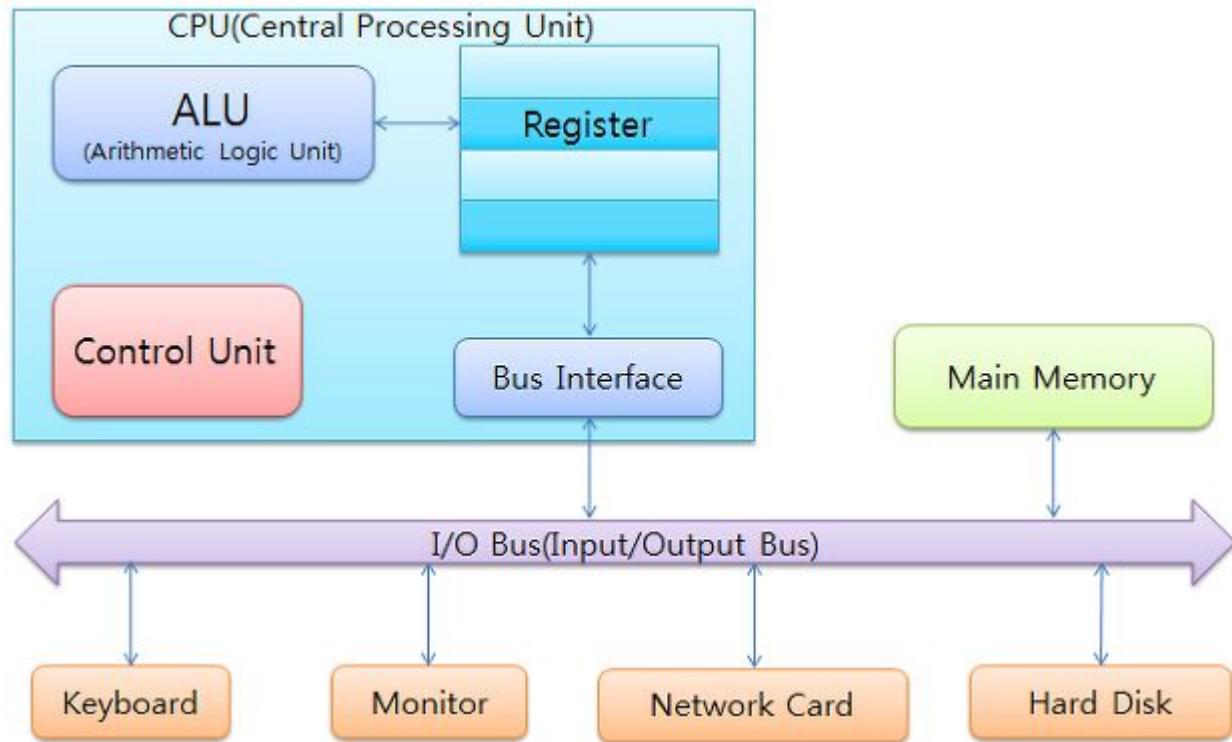
# Java

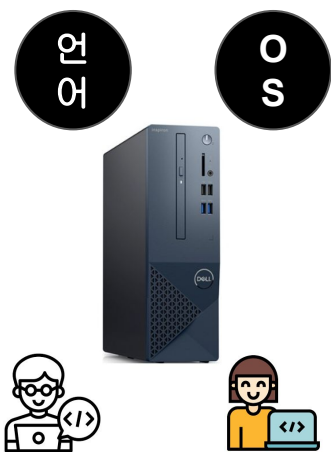


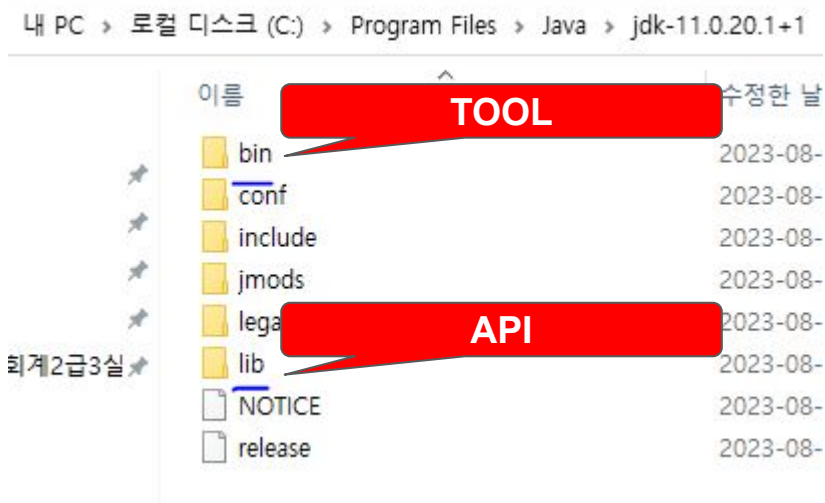
서버

인터넷

클라이언트







**JDK (자바개발환경)**  
**javac, javap**

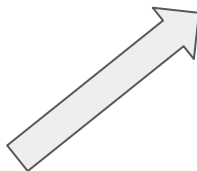
**JRE (자바실행환경)**  
**java, javaw, library(API)**

**JVM (자바가상머신)**  
**JIT 컴파일러**

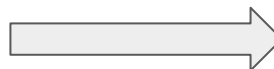
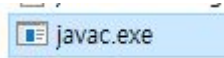


```
public class Hello {  
    public static void main(String[] args)  
    {  
        System.out.println("Hello Wolrd!");  
    }  
}
```

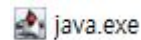
프로그래밍언어  
- 자바



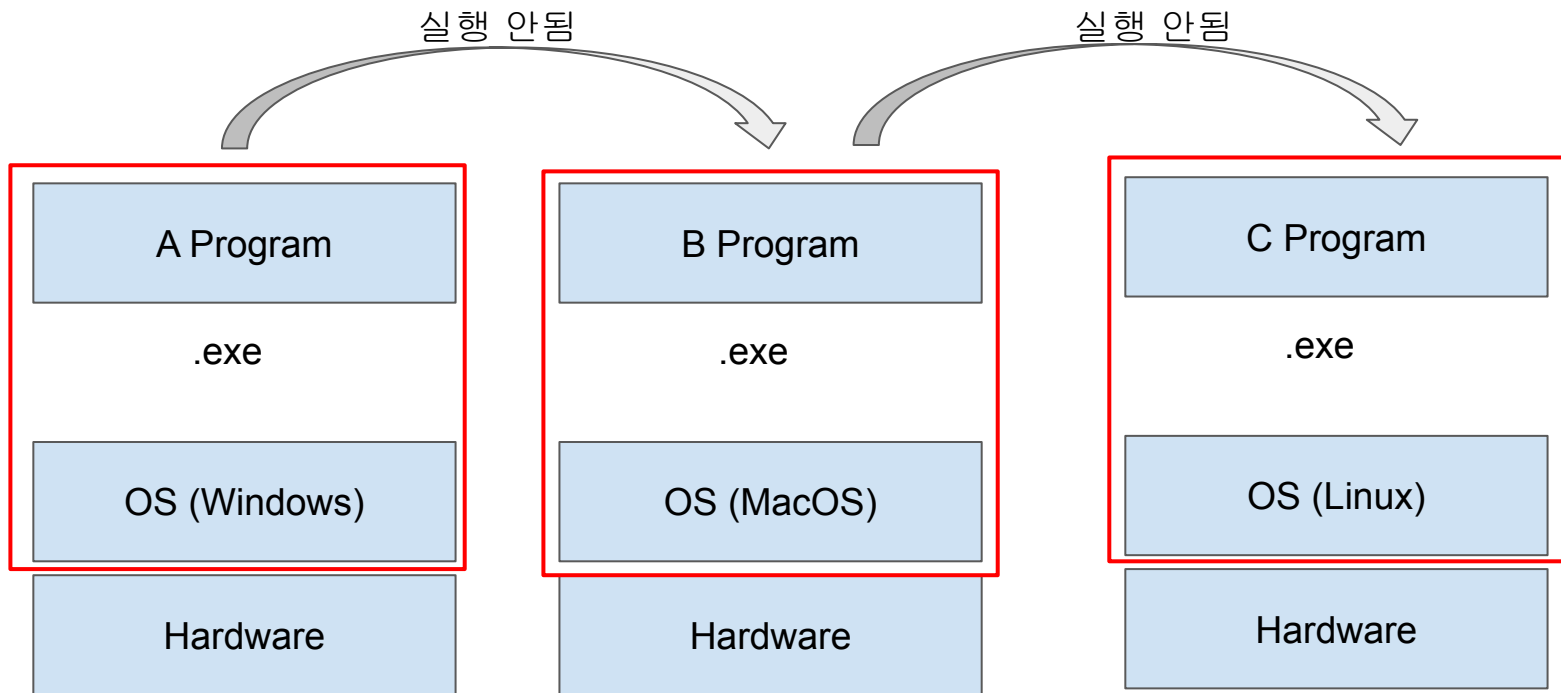
JDK에 포함된  
컴파일러



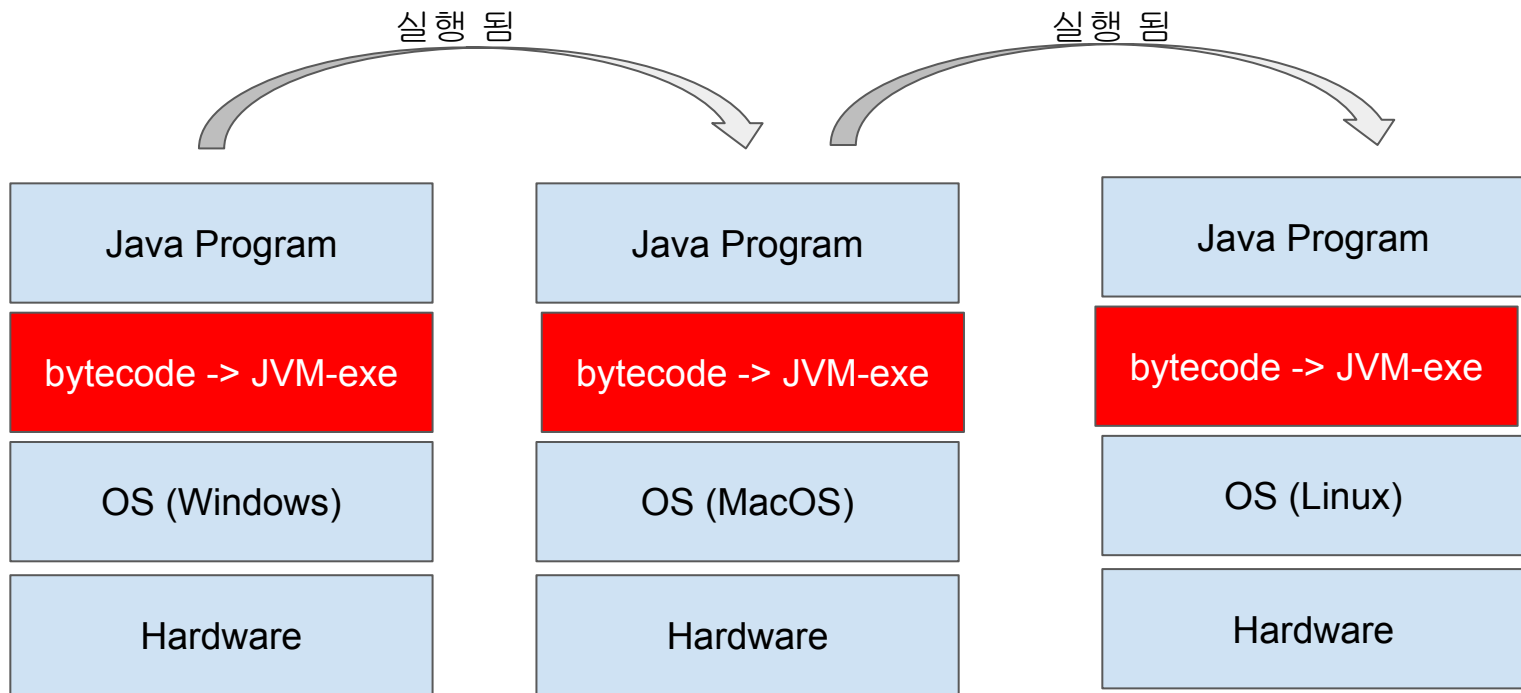
JDK에 포함된 실행



0010101111000011010  
0001101000000001111  
0000111100111100111



종속적





JDK에서 처리

Java Source  
File  
(.java)

컴파일  
(javac.exe)

Java Byte  
Code  
(.class)

Run을 하는 순간  
(실행하는 순간)  
java.exe

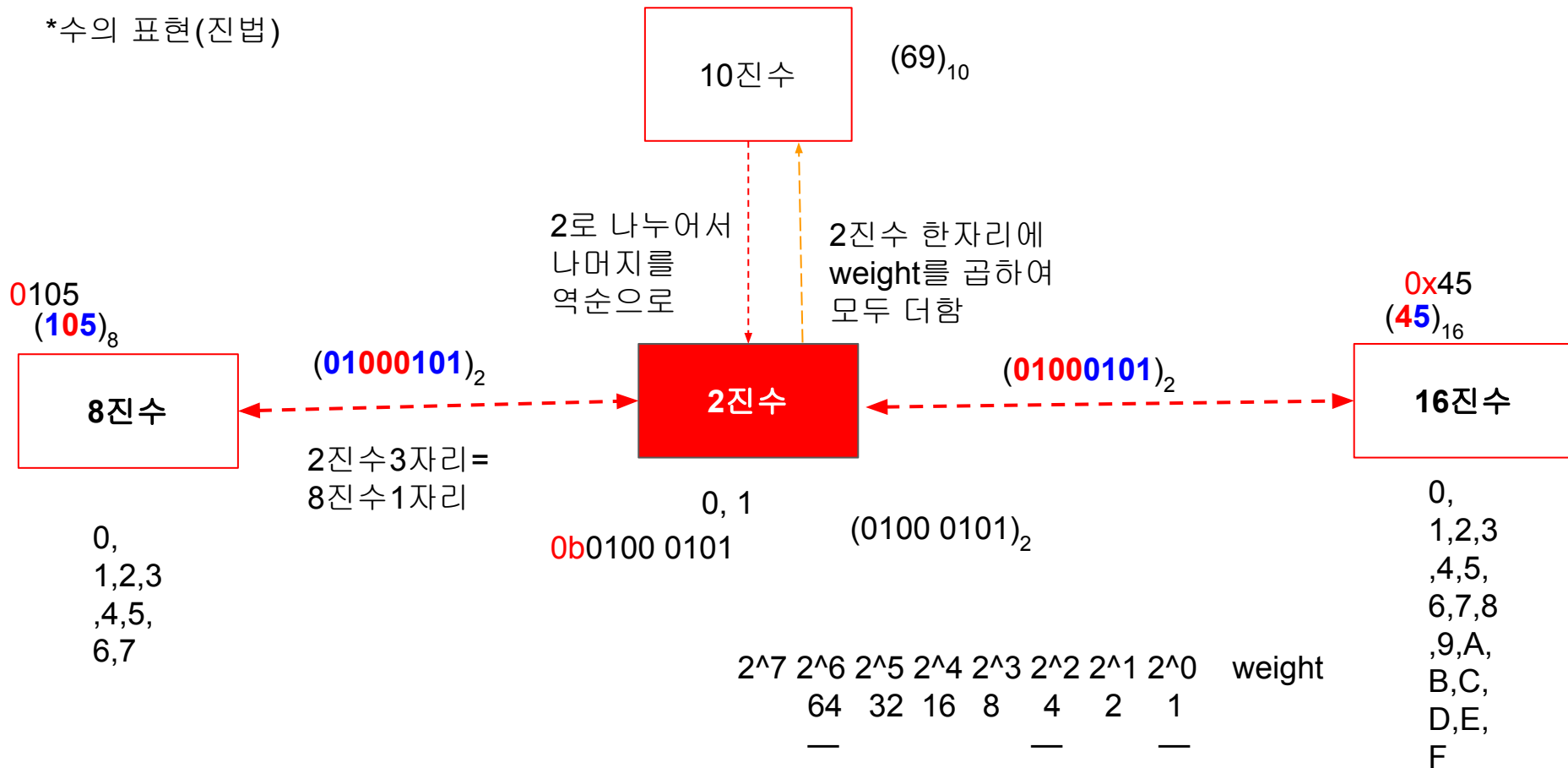
JVM이 동작 함

Class loader

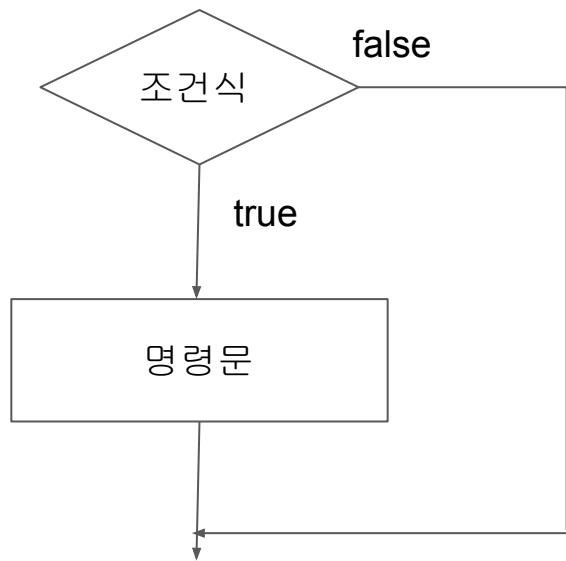
Execute

java.exe Hello (실행)  
⇒ 원격프로세서 호출 (JVM)

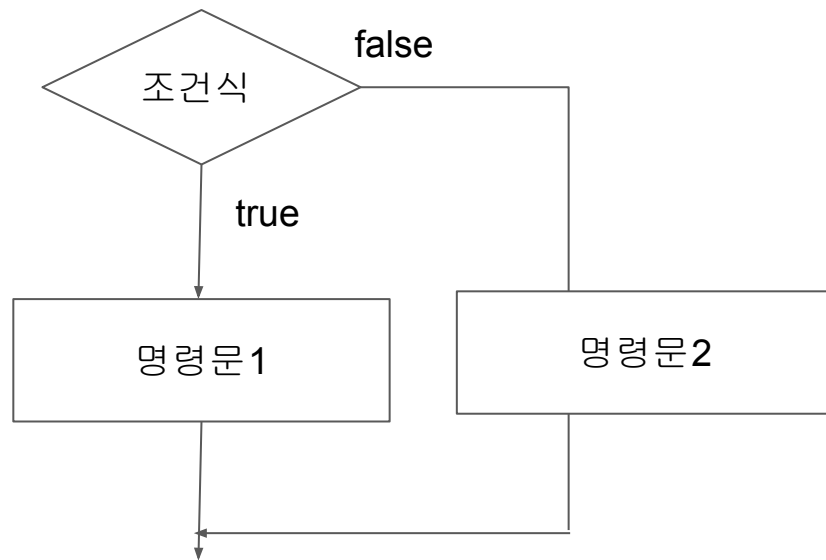
\*수의 표현(진법)

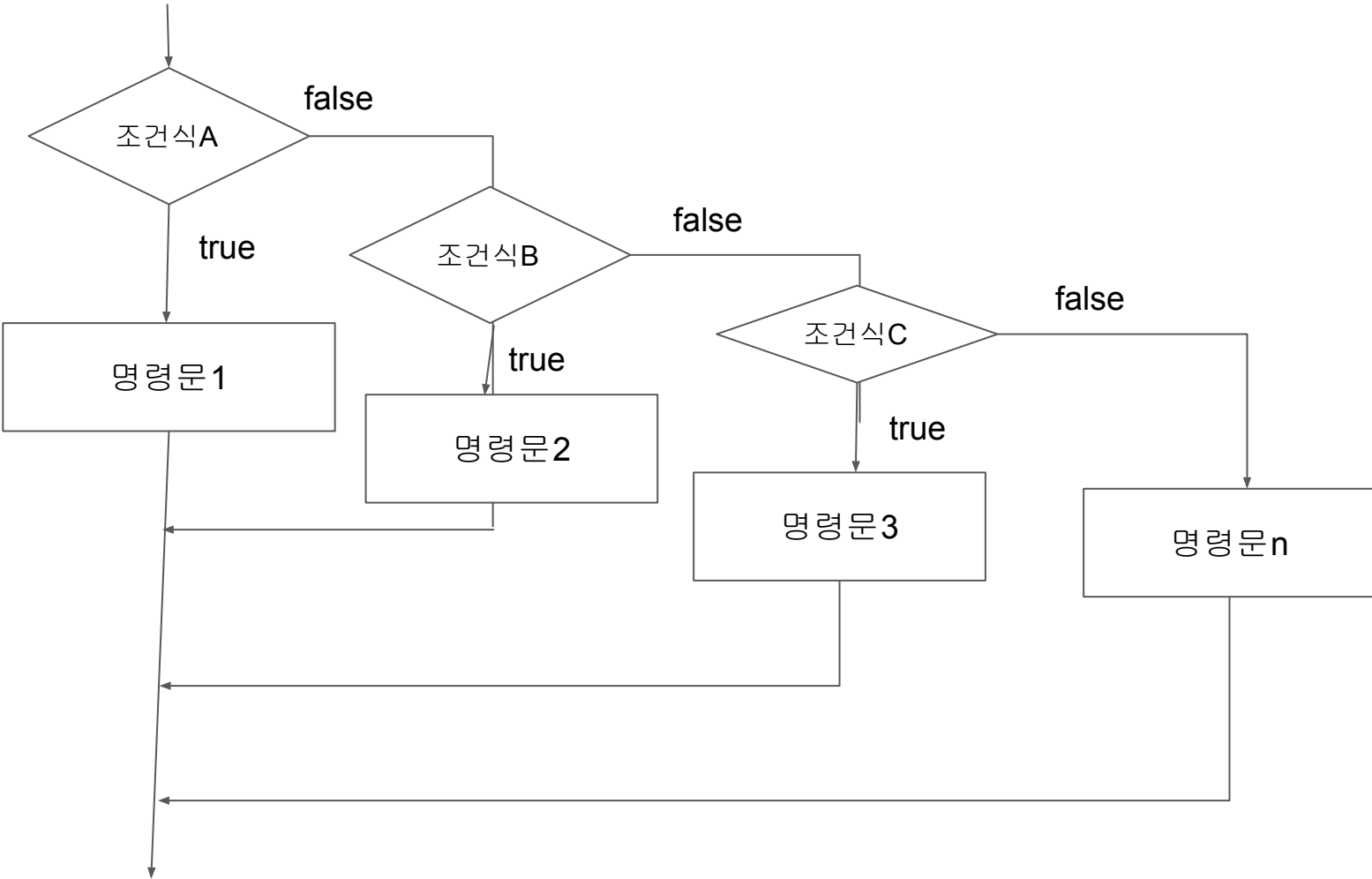


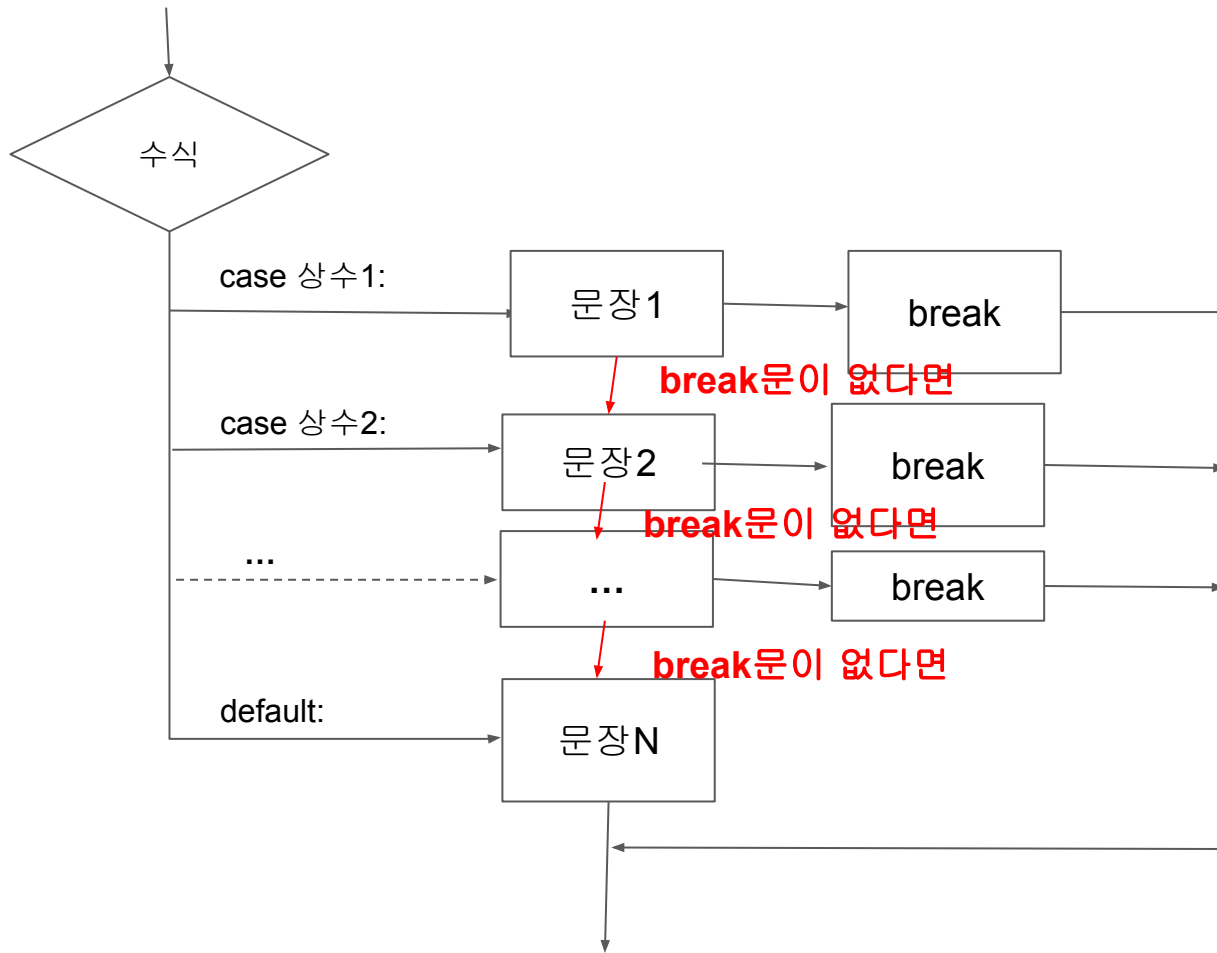
if문



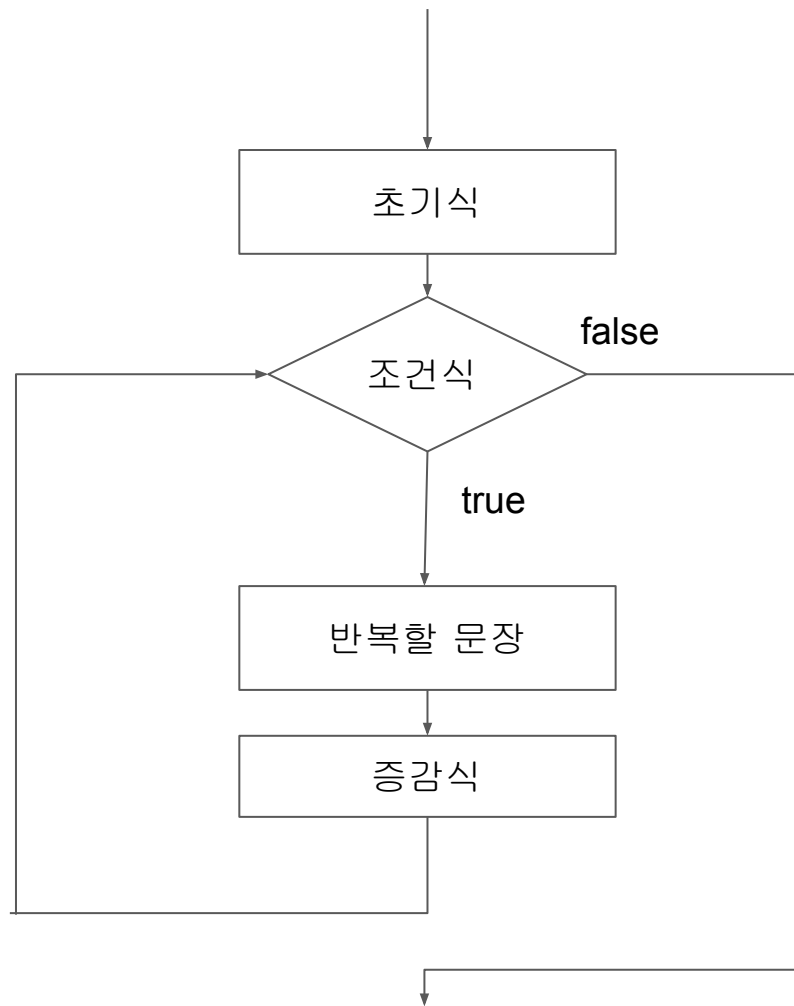
if ~ else 문



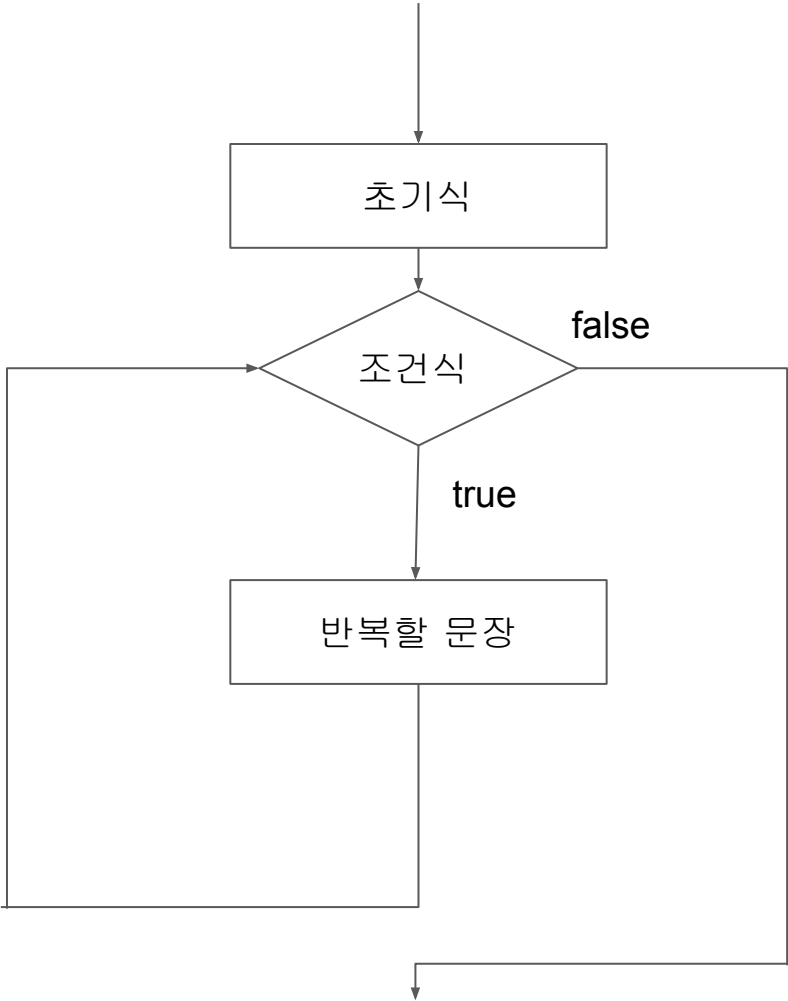




for문

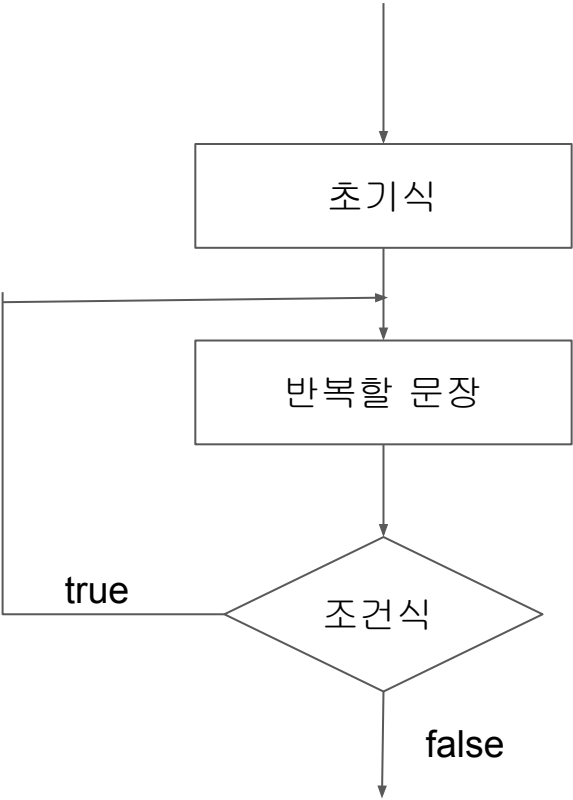


while문





do-while문



JDK에서 처리

Java Source  
File  
(.java)

컴파일  
(javac.exe)

Java Byte  
Code  
(.class)

Run을 하는 순간  
(실행하는 순간)  
java.exe

JVM이 동작 함

Class loader

Execute

java.exe Hello (실행)  
⇒ 원격프로세서 호출 (JVM)

JVM의 Memory model (Runtime Data Area)

Thread

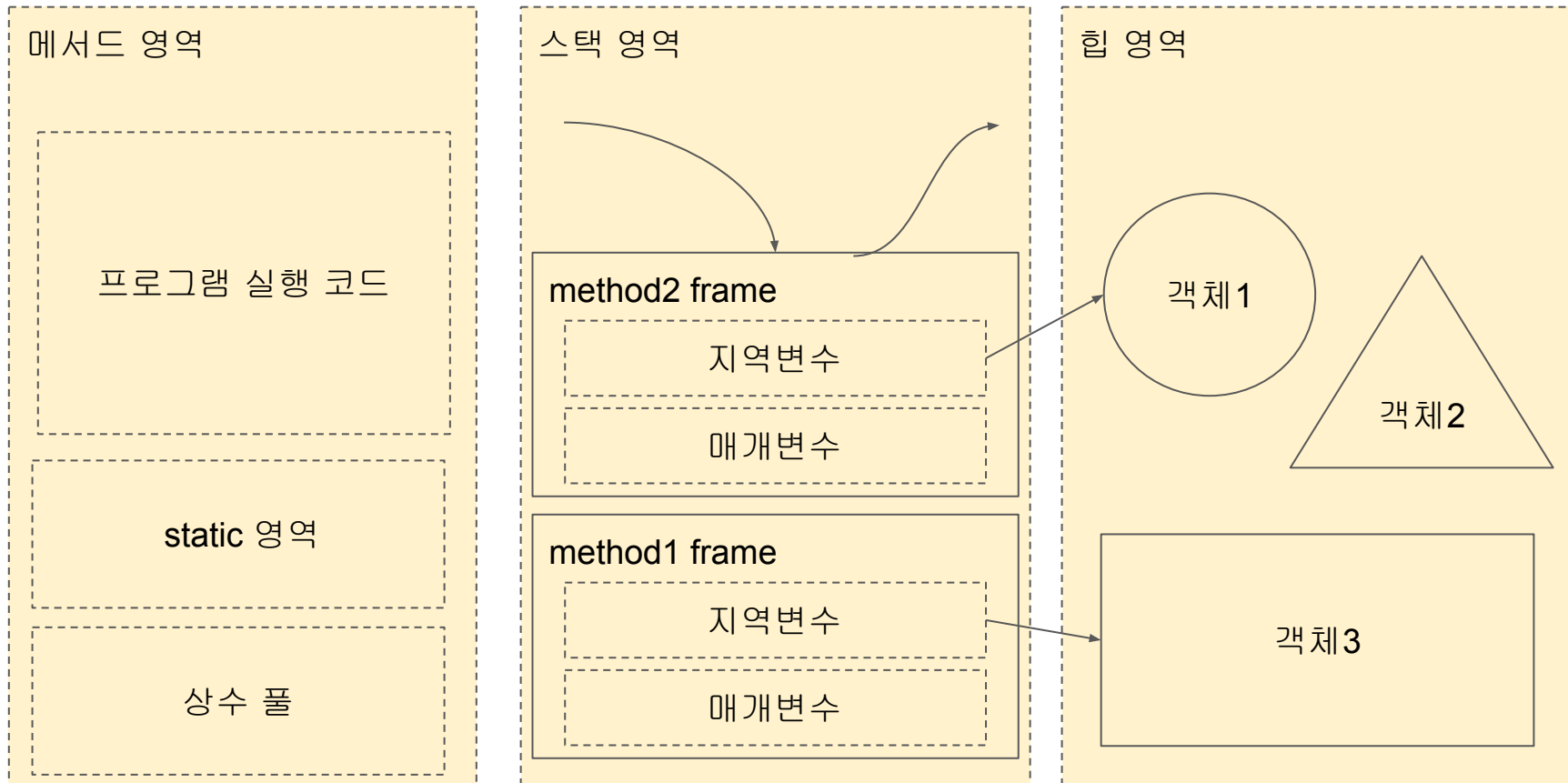
Method Area

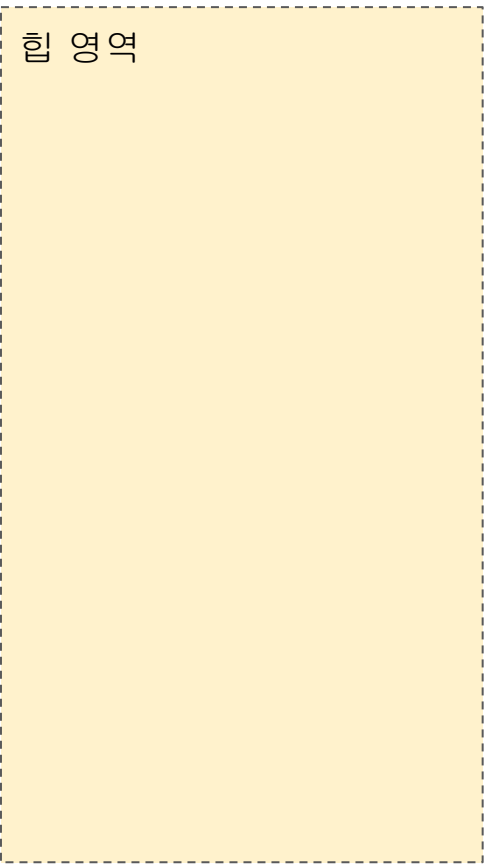
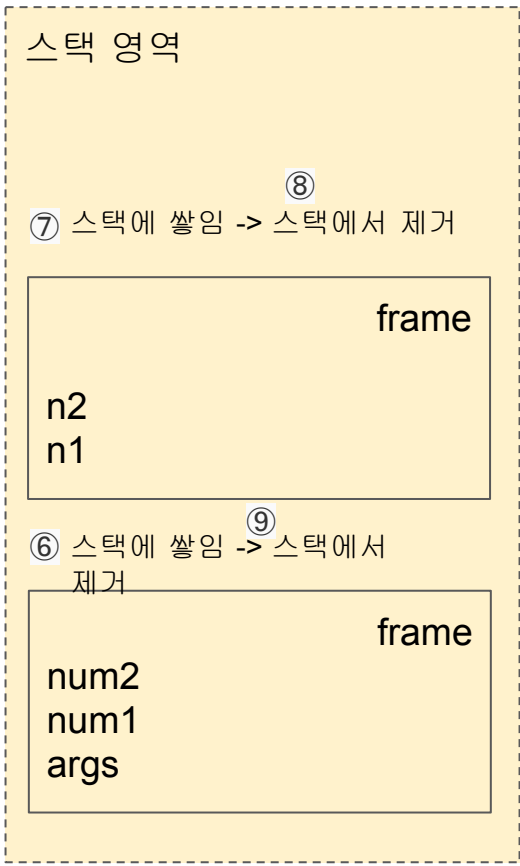
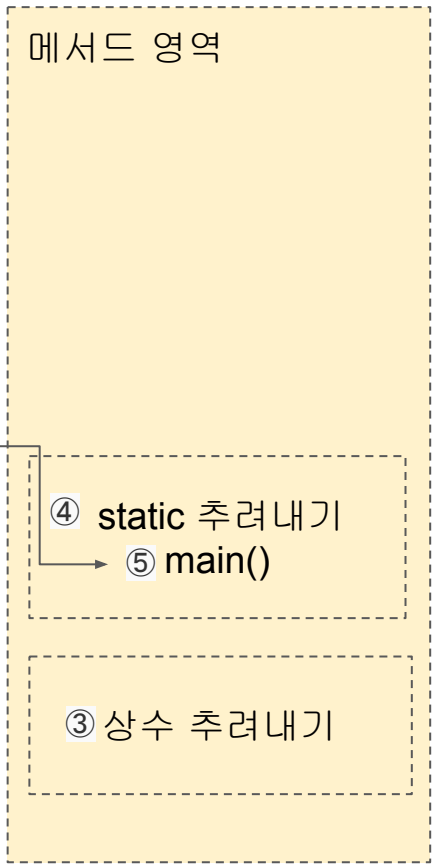
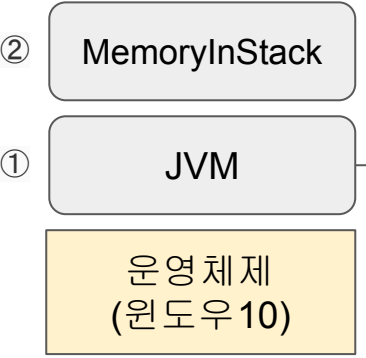
Heap Area

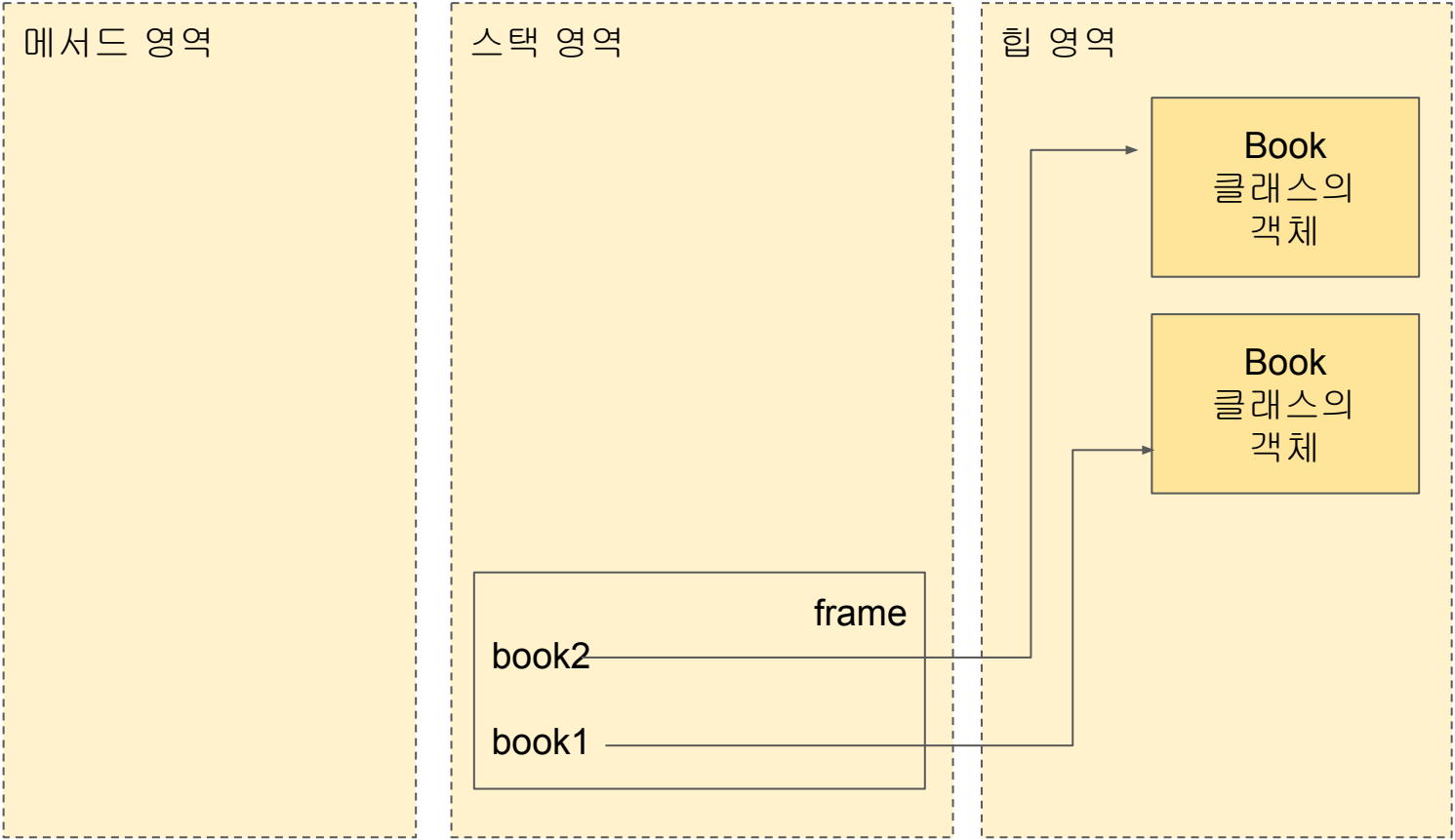
Stack Area  
(Call Stack Frame  
Area)

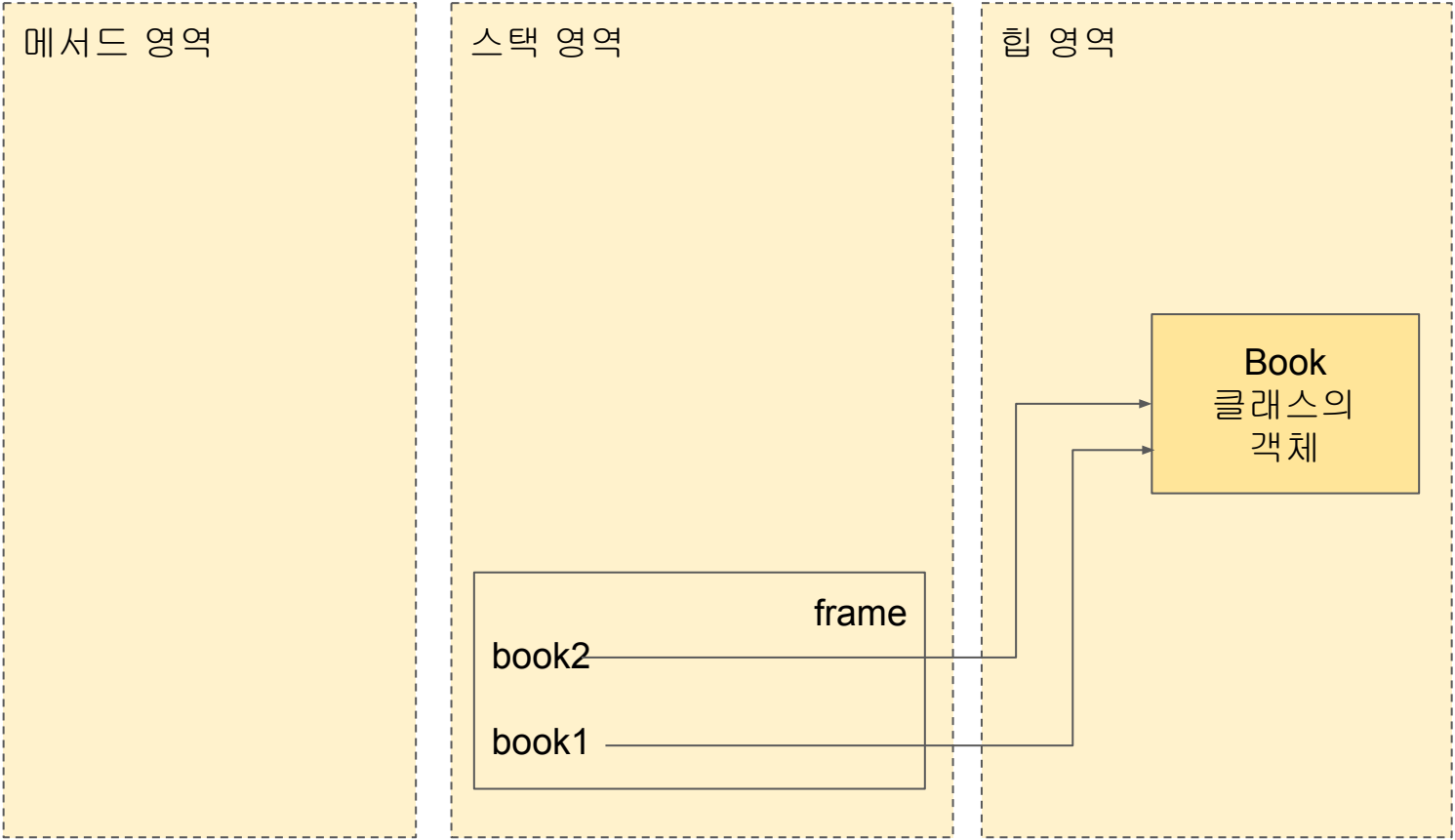
Runtime Constant  
Pool  
(Literal Pool)

## 런타임 data 영역들









기본자료형

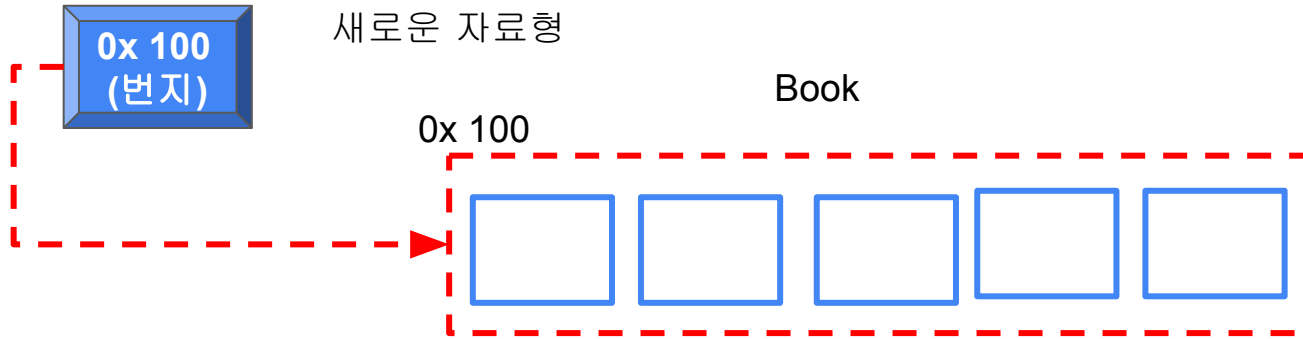


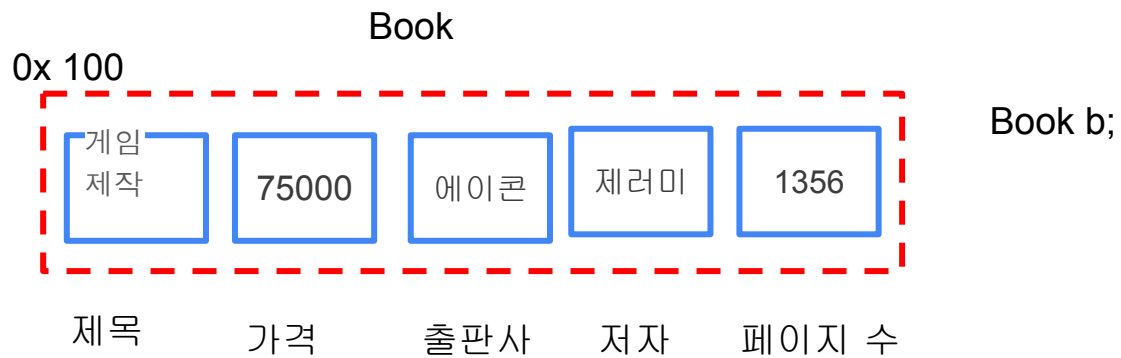
int a;

새로운 자료형

Book

Book b;

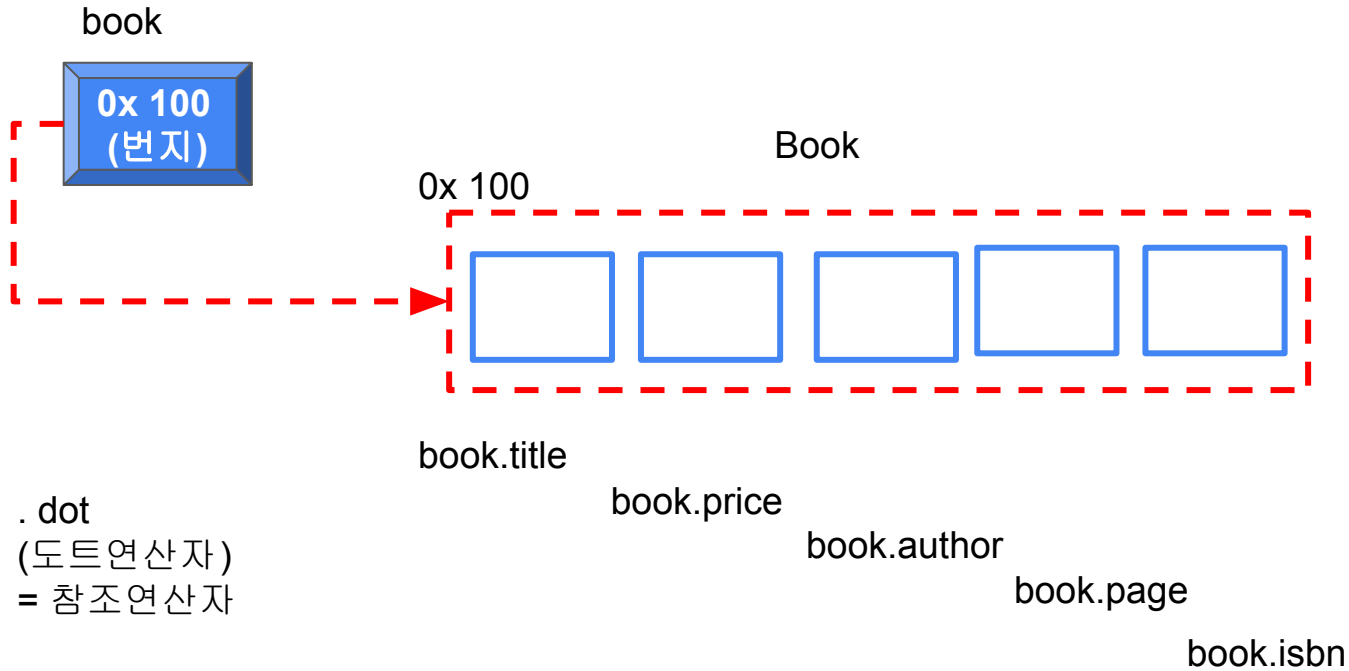




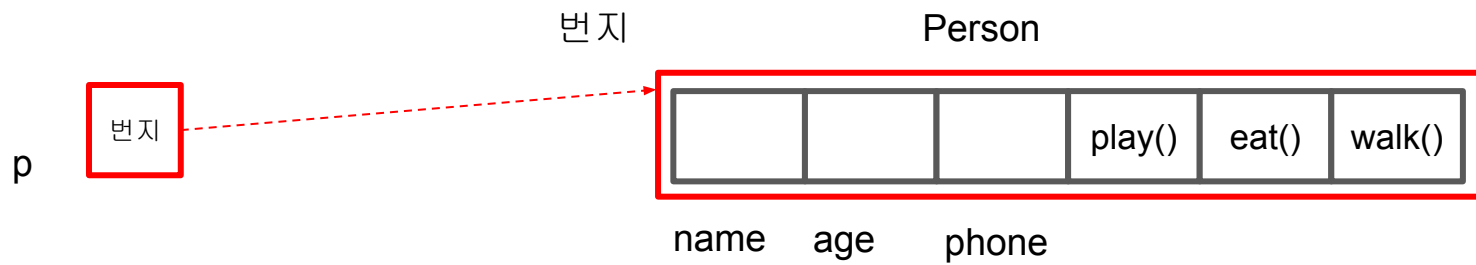
기억공간을 하나의 구조(객체)



```
Book book = new Book();
```

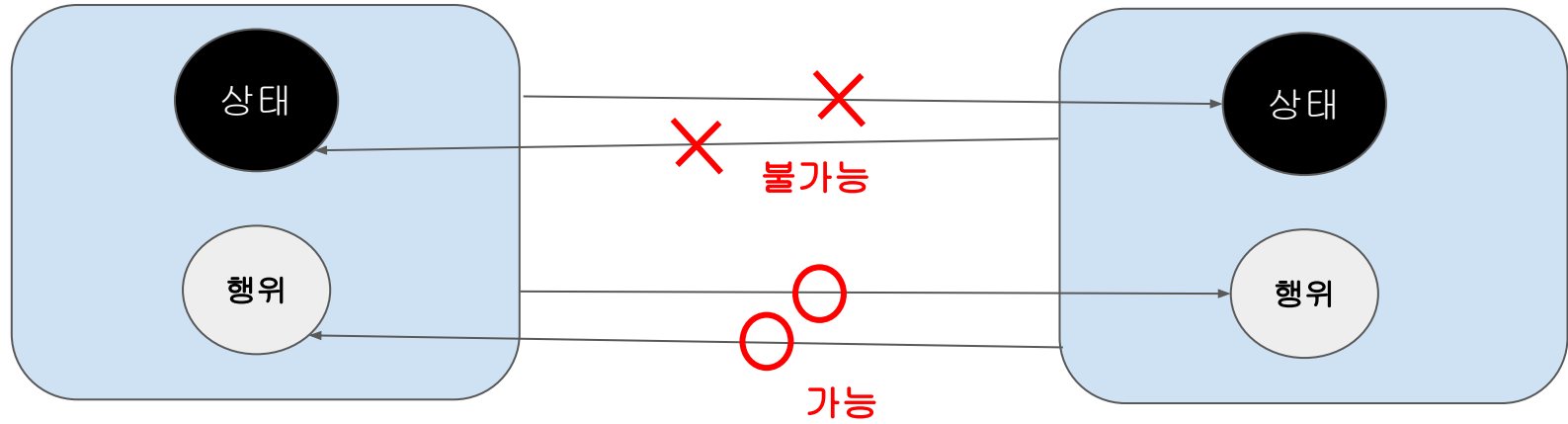


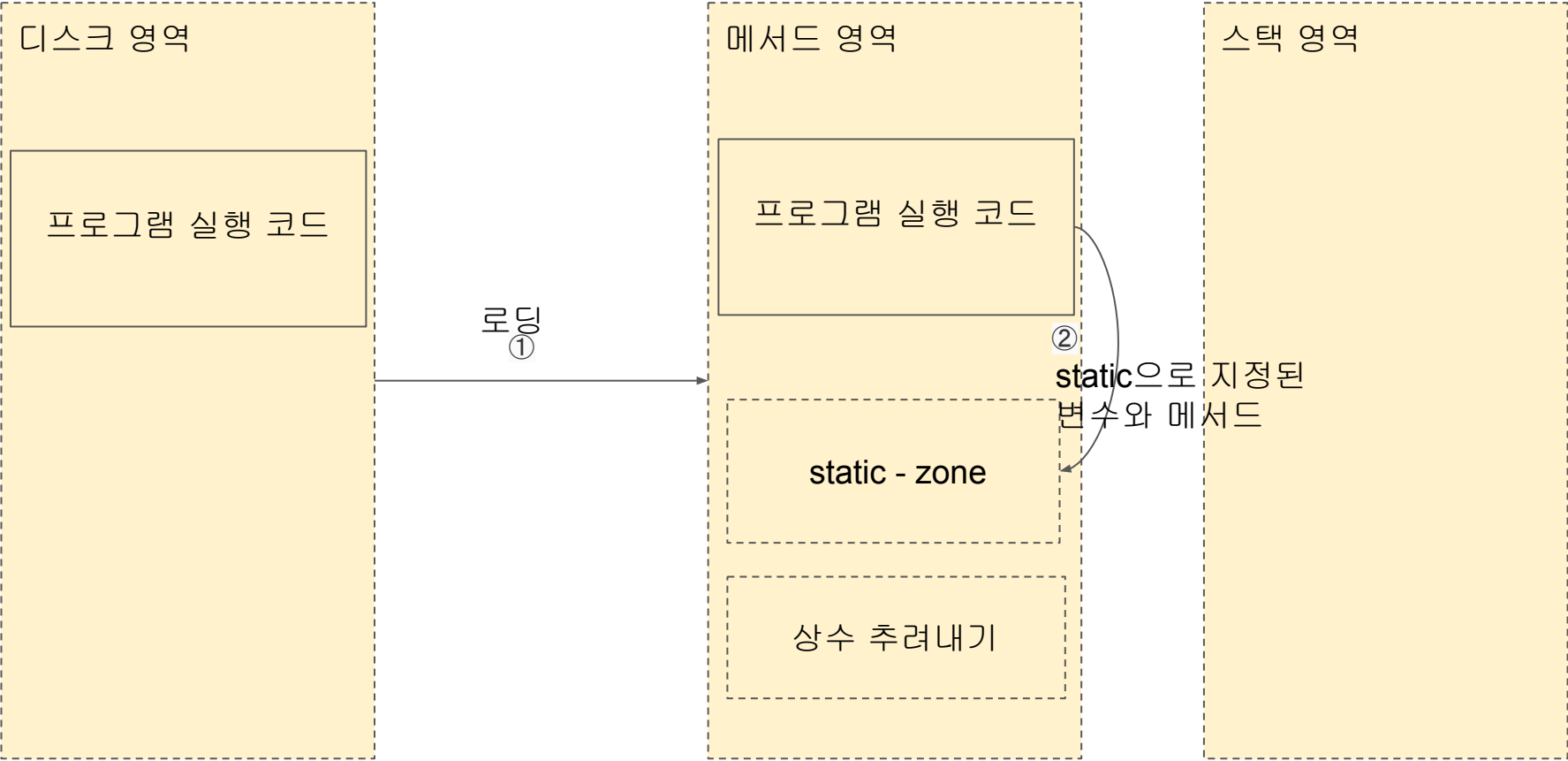
```
Person p = new Person();
```

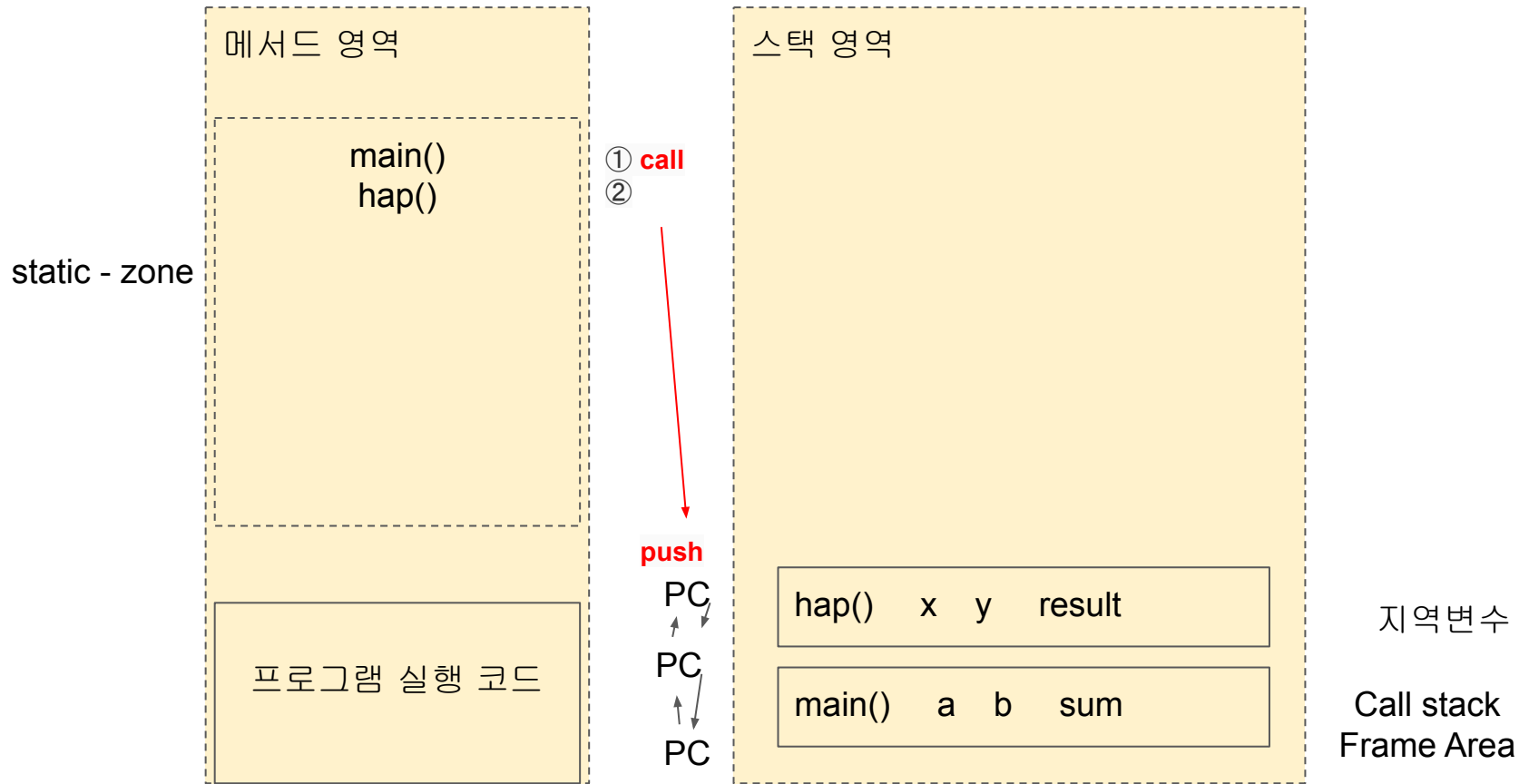


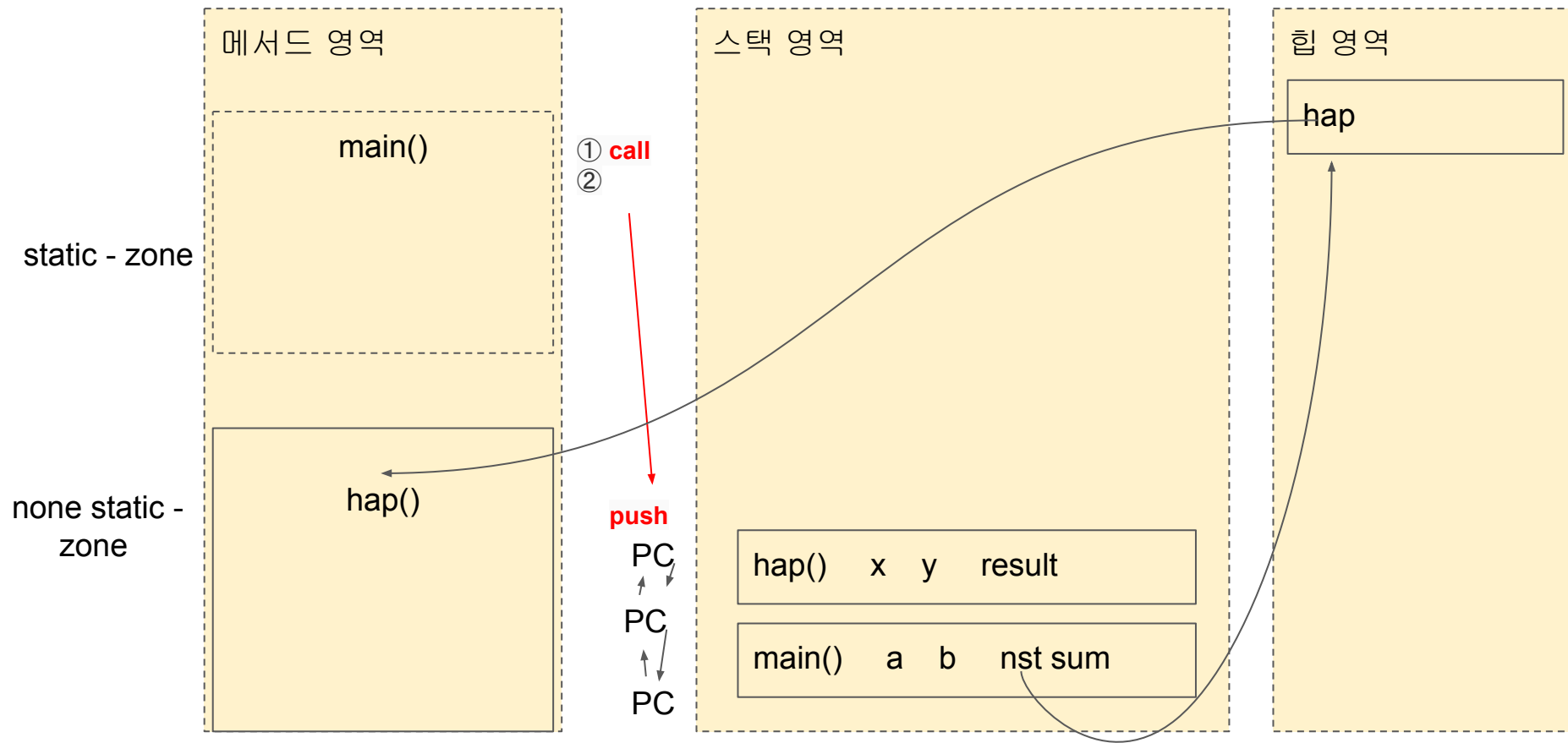
A class

B class









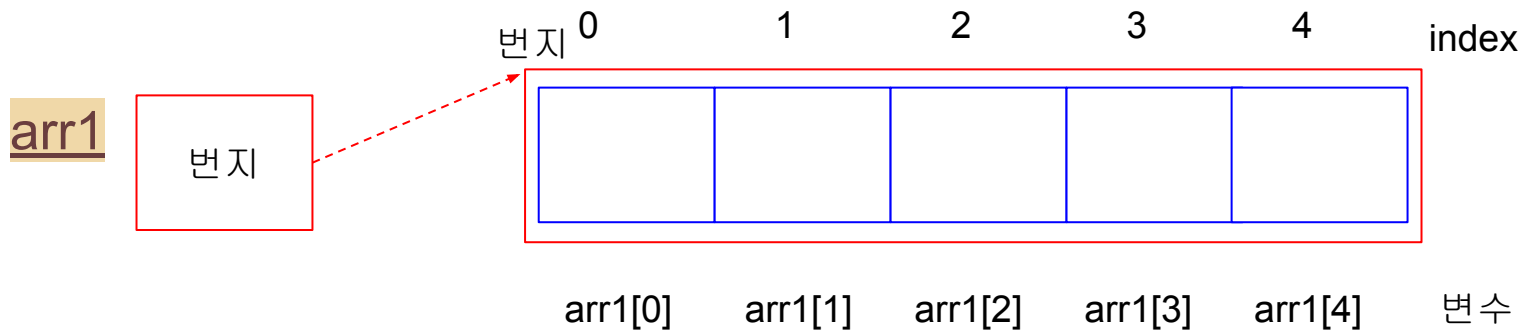
`int[ ]`      `int` 여러 개 자료형



1차원 배열 = [ ]

2차원 배열 = [ ][ ]

`new int[3];`





movies

번지

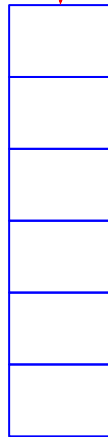
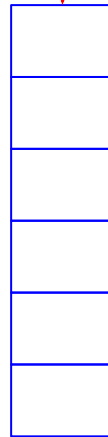
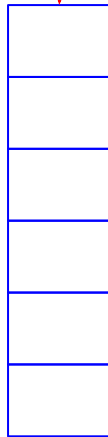
movies[0] movies[1] movies[2]  
번지

번지

번지

null

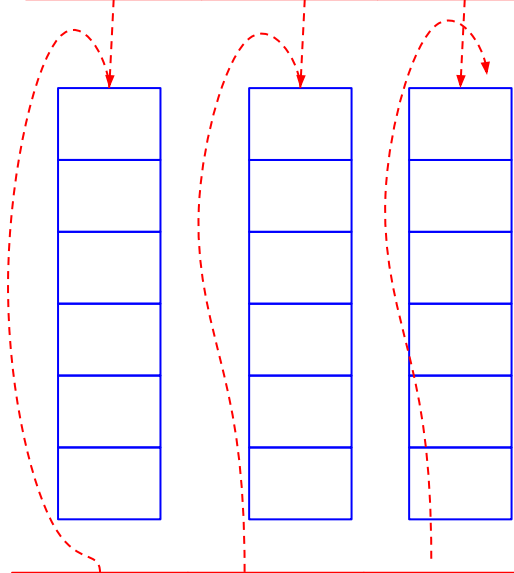
변수



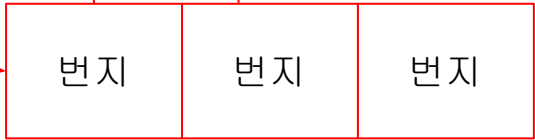
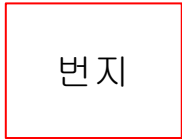
libray



Book[0] Book[1] Book[2]  
변지



copylib



변수

movies



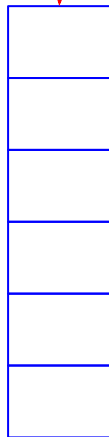
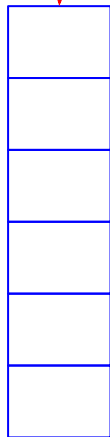
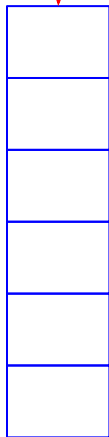
movies[0]  
변지



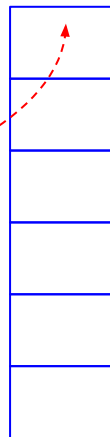
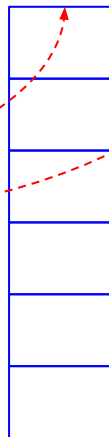
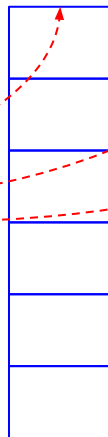
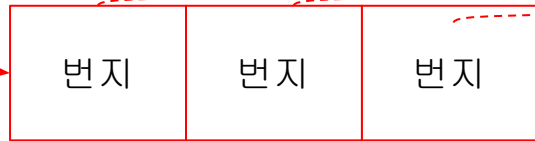
movies[1]

movies[2]

변수



copylib

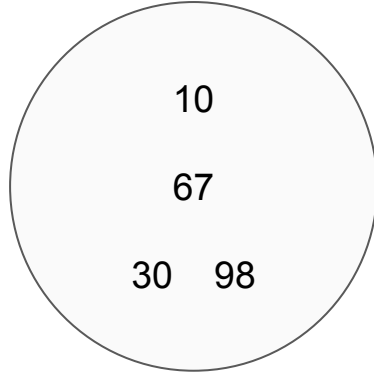



arr[0][0] arr[0][1] arr[0][2]

arr[1][0] arr[1][1] arr[1][2]

동일한 데이터 타입

정수 데이터



array

이질적인 데이터 타입

학생 데이터



class

### 일반 사원

이름,나이,  
전화번호,주소,  
입사일,근무부서  
부동산

### 관리 사원

이름,나이,  
전화번호,주소,  
입사일,관리부서  
부동산

### 비서

이름,나이,  
전화번호,주소,  
입사일,사무부서  
부동산

### 일용직

이름,나이,  
전화번호,주소,  
입사일,근로계약  
부동산

## 사원

이름,나이,  
전화번호,주소,  
입사일,근무부서

### 일반 사원

사원의 정보를  
사용가능

### 관리 사원

사원의 정보를  
사용가능

관리부서

### 비서

사원의 정보를  
사용가능

상급자

### 일용직

사원의 정보를  
사용가능

고용기간

# Employee

name,age,phone,a  
ddr,empDate,dept

extends

## RegularEmpDTO

사원의 정보를  
사용가능

## MEmpDTO

사원의 정보를  
사용가능

mdept

## SEmpDTO

사원의 정보를  
사용가능

senior

## DEmpDTO

사원의 정보를  
사용가능

period



```
Circle circle = new Circle();
```

