DYNAMIC MEMORY: NEW & DELETE

Allocating and Deallocating Memory

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THE NEW OPERATOR

1. Allocates memory from the heap
2. Calls the constructor if the memory is being allocated for an instance of a class
3. Returns the address of the allocated memory

ALLOCATING MEMORY

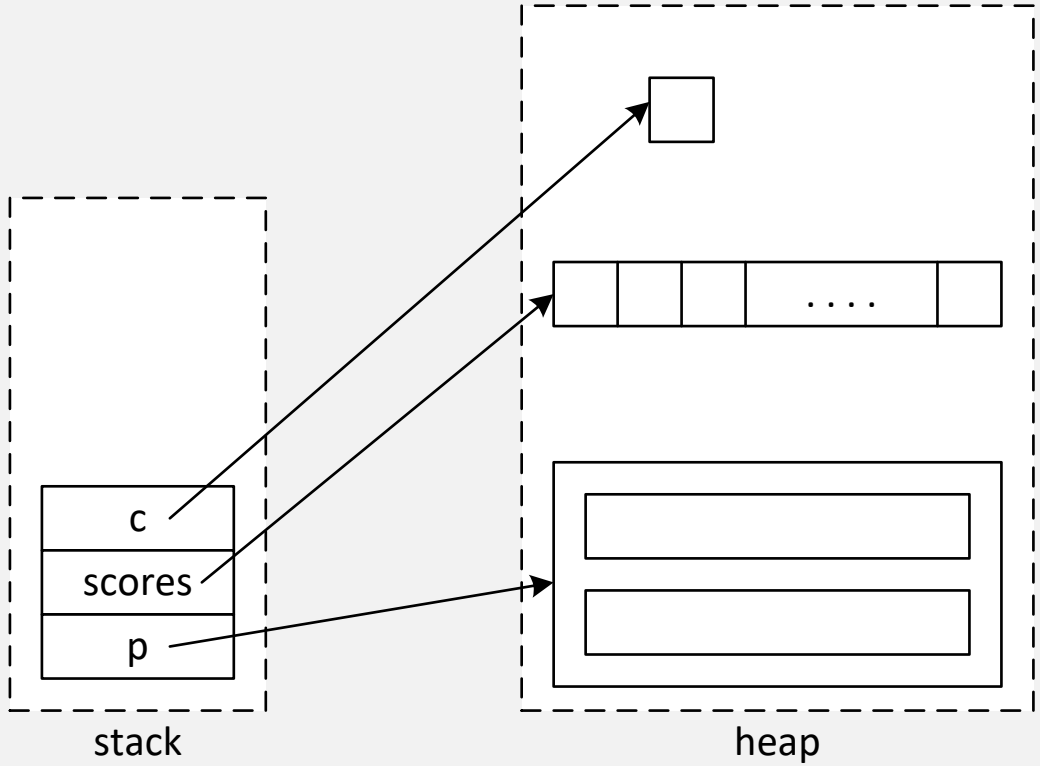
C++

```
char*     c = new char;
double*   scores = new double[size];
Person*   p = new Person;
```

JAVA

```
Character c = new Character();
double[]  scores = new double[size];
Person    p = new Person();
```

ABSTRACT REPRESENTATION



DEALLOCATING MEMORY

C++ JAVA

```
delete    c;         // deallocates a single char
delete[]  scores;    // deallocates an array
delete    p;         // deallocates one object
```