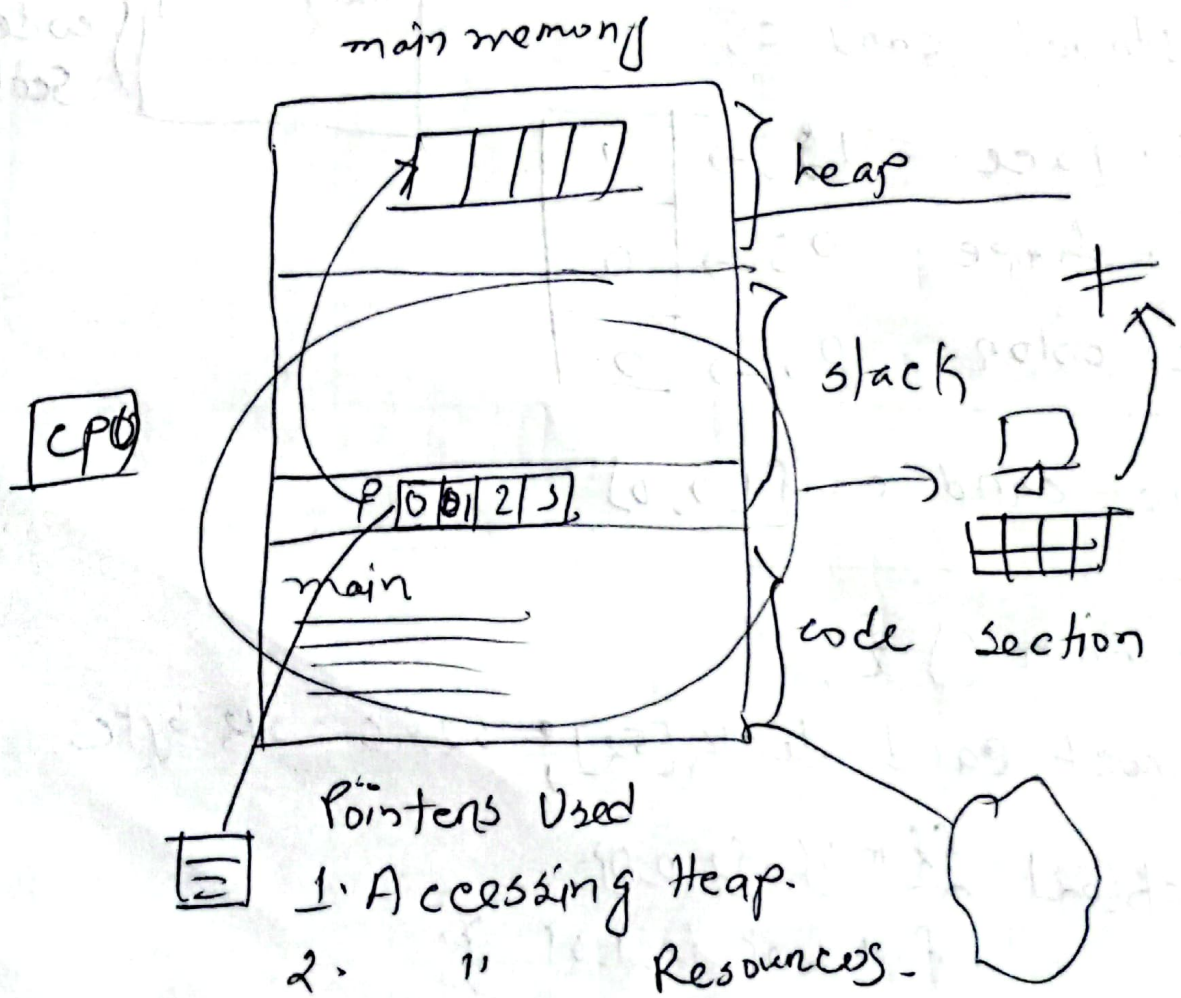
Pointers

Pointer is an address variable that is meant for storing address of a data, not the data itself. normal variables are data variables, but the pointers are address variables. It is used for indirectly accessing the data.



Pointers Used

1. Accessing Heap.
2. " Resources.
3. Parameter Passing.

```
int main() {
    int a=10;
    int *p;
    p = &a;
    printf("%d", a);
    printf("%d", *p);
```

int a=10; → Data variable. → a [10] 200/201.

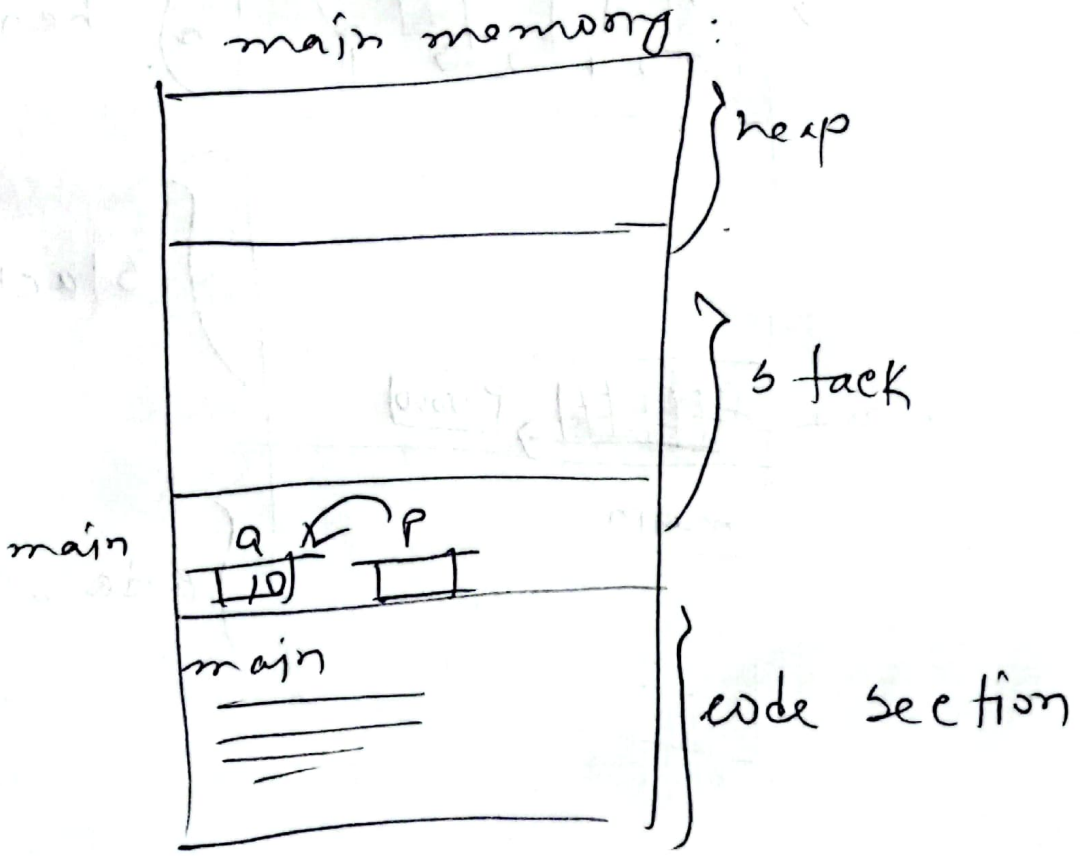
int *p; → Address variable. → declaration.

p = &a; → initialization

p [200] 210/211

200/201 → address.

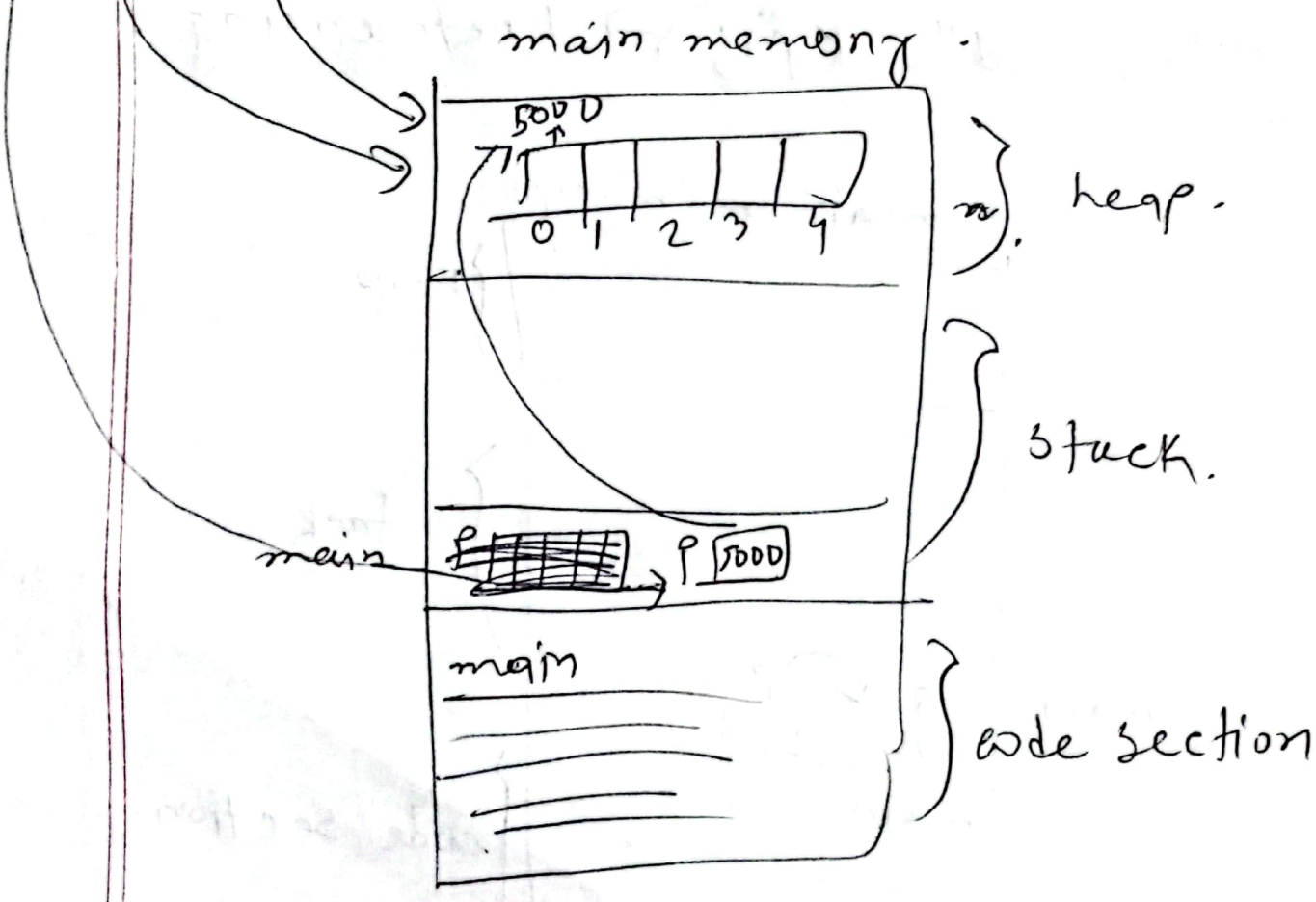
*p → dereferencing.



for malloc() → c

```
#include <stdlib.h>.
int main(){
    int *p;
    p = (int *) malloc( 5 * sizeof (int));
```

or, p = new int [5]; → c++ style.



Usage of pointers → creating heap memory.