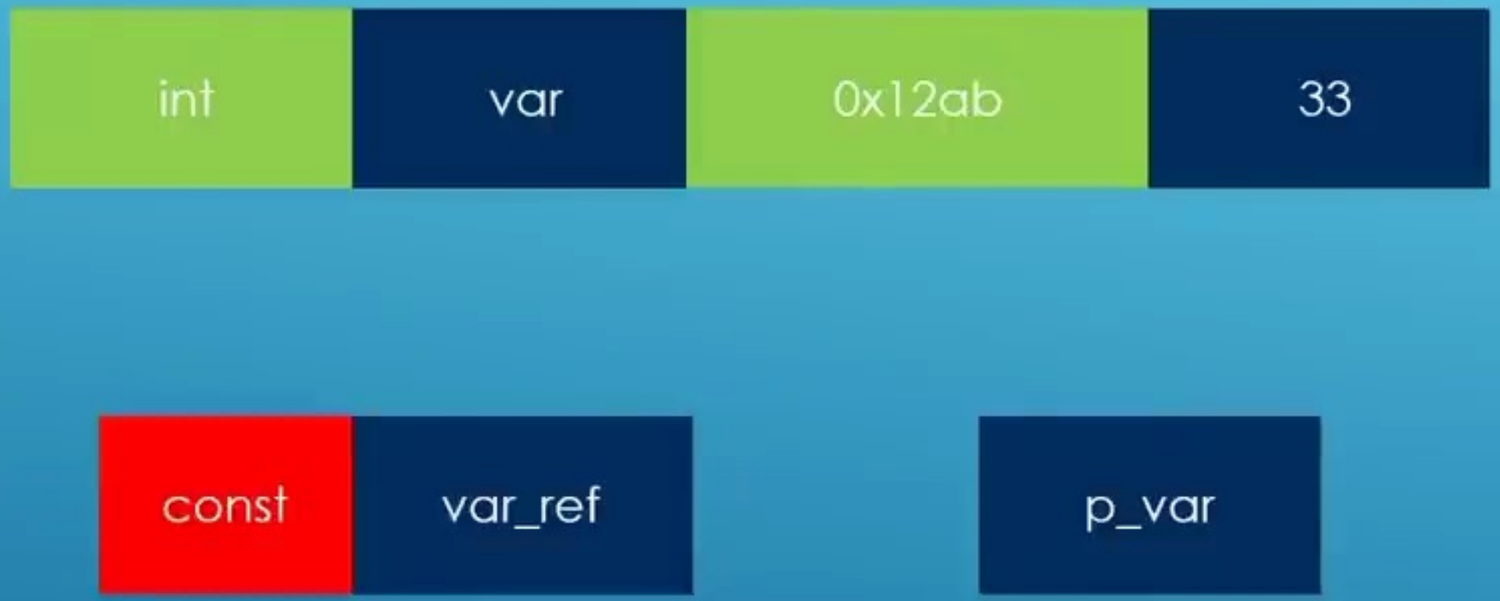
References and const


int
var
0x12ab
33


int
var
0x12ab
33
var_ref
p_var


int
var
0x12ab
33
const
var_ref
p_var

Non const reference

```
//Non const reference
std::cout << std::endl;
std::cout << "Non const reference : " << std::endl;
int age {27};
int& ref_age{age};

std::cout << "age : " << age << std::endl;
std::cout << "ref_age : " << ref_age << std::endl;


//Can modify original variable through reference

std::cout << std::endl;
std::cout << "Modify original variable through reference : " << std::endl;

ref_age++; //Mofify through reference

std::cout << "age : " << age << std::endl;
std::cout << "ref_age : " << ref_age << std::endl;
```

const reference

```
//const reference

std::cout << std::endl;
std::cout << "Const references : " << std::endl;
age = 30;
const int& const_ref_age{age};

std::cout << "age : " << age << std::endl;
std::cout << "const_ref_age : " << const_ref_age << std::endl;

//Try to modify throug const reference
const_ref_age = 31; // Error
```

Duplicate const reference behavior with pointers

```
//Can achieve the same thing as const ref with pointer : const pointer to const data
//Remember that a reference by default is just like a const pointer. All we need
//to do is make the const pointer point to const data

const int* const const_ptr_to_const_age{&age};

*const_ptr_to_const_age = 32; // Error
```

No such thing

```
const int& const weird_ref_age{age}; // Error
```

const applies to reference variable name. Not to original variable

```
//const reference

std::cout << std::endl;
std::cout << "Const references : " << std::endl;
age = 30;
const int& const_ref_age{age};

std::cout << "age : " << age << std::endl;
std::cout << "const_ref_age : " << const_ref_age << std::endl;

//Try to modify throug const reference
const_ref_age = 31; // Error
```