41 - The "this" keyword in C++

sexta-feira, 7 de março de 2025 07:07

- - Only accessible to us throu a member function
  - which is a method that belongs to a class
- This is a pointer to the current object instance that the method belongs to
  - we write a non static method
  - instantiate an onject
  - call the method
  - The this keyword is a pointer to that object
- We can't reassign this to anything else

```
479  class Entity41
480  {
481      public:
482          int x, y;
483
484          // we could use an initialize list but lets be different
485          Entity41(int x, int y)
486          {
487              // if we call as usual we would have a problem, because the name i the same
488              // x = x;
489              // we reference the x annd y that is member of the class, we can use this.
490              // an pointer to the current instantiated object
491              // We need to derreference, that is why we use -> instead of .
492              this->x = x;
493              this->y = y;
494
495              // Pass the current instance to an static class to make it have access to it
496              PrintEntity41(this);
497          }
498
499          int GetX() const{
500              // Whith the const definition, we can't modify anything in the class, so
501              // the this is also const
502              // this->x = 5; // Not allowed
503
504              const Entity41* e = this;
505              return e->x;
506              // The same as
507              // return this->x;
508          }
509  };
510
511  void PrintEntity41(Entity41* p)
512  {
513      // print something
514  }
515
```