# Performance Comparison
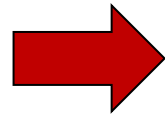
```cpp
std::chrono::duration<double> st = std::chrono::system_clock::now();
for (long long i=0 ; i < 100000000; ++i){
  int* tmp(new int(i));
  delete tmp;
  // std::unique_ptr<int> tmp(new int(i));
  // std::unique_ptr<int> tmp= std::make_unique<int>(i);
  // std::shared_ptr<int> tmp(new int(i));
  // std::shared_ptr<int> tmp= std::make_shared<int>(i);
}
auto dur=std::chrono::system_clock::now() - st();
std::cout << dur.count();
```

| Pointer Type | Time | Available Since |
|---|---|---|
| new | 2.93 s | C++98 |
| std::unique_ptr | 2.96 s | C++11 |
| std::make_unique | 2.84 s | C++14 |
| std::shared_ptr | 6.00 s | C++11 |
| std::make_shared | 3.40 s | C++11 |