

std::map

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1. std::map – sorted key, value pair implemented using list

```
std::map<char, int> first;
first['a']=10;
first['b']=30;
first['c']=50;
first['d']=70;

std::map<char, int> second (first.begin(),first.end());
std::map<char, int> third (second);
std::map<char, int, classcomp> fourth;           // Compare is a functor
```

2. Second template parameter (Compare)

This shall be a function pointer or a function object.

From <<https://cplusplus.com/reference/set/set/set/>>

Uses the default std::less

3. Iterators – const, non-const bidirectional and reverse iterator

4. Members access – [], at, itr->first, itr->second

5. Size

- size - number of elements currently used
- empty?

MAX_SIZE - ???

6. Map size related

- erase(it) or erase(itr1, itr2) or erase(key) - and reduce size
- clear() - make size 0
- std::pair<std::map<char, int>::iterator, bool> insert(std::pair<,>(key,value)), Insert(itr, std::pair<,>(key,value)) or insert(itr1, itr2)
- std::pair<std::map<char, int>::iterator, bool> emplace(key, value)

7. Operator =, []

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8. Special – count(key) returns 1 or 0, find(key) returns iterator

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9. F

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10. F

11. F

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12. F

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13. F

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14. F

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15. F

I

16. F

I

17. D

I

18. F

I

19. F

I

- 20. F
I
- 21. F
- 22. F
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- 23. F
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- 24. F
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- 25. F
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- 26. F
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- 27. F
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- 28. D
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- 29. F
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- 30. F
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- 31. F
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- 32. F
- 33. F
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- 34. F
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- 36. F
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- 37. F
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- 38. F
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- 39. D
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- 40. F
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- 41. F
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- 42. F
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- 43. F
- 44. F
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- 45. F
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- 46. F
I
- 47. F
I
- 48. F
I