

# Sample Implementation for inheritance in Python

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```
class SearchAlgorithm(object):
    def Search(self):
        print 'search..'
        self.heuristic()
    def heuristic(self):
        print "parent heuristic"

class UniformCostSearch(SearchAlgorithm):
    def heuristic(self):
        print "uniform heuristic"

class AStarSearch(SearchAlgorithm):
    def heuristic(self):
        print "a star heuristic"

class WeightedAStarSearch(AStarSearch):
    def __init__(self):
        self.w = 1
    def heuristic(self):
        print self.w, "weighted a star heuristic"
        super(WeightedAStarSearch, self).heuristic()

ucs = UniformCostSearch()
ucs.Search()
sa = SearchAlgorithm()
sa.Search()
was = WeightedAStarSearch()
was.Search()
super(WeightedAStarSearch, was).heuristic()
```