

# 1 Conquer Algorithm

## 1.1 Introduction

These algorithms mainly contain with:

- divide and conquer
- decrease and conquer
- change and conquer

## 1.2 Pseudo code

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**Algorithm 1** Divide-and-Conquer algorithm

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**Require:** The total problem  $p$

**Ensure:** The result of problem  $T$

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1: function DIVIDE-AND-CONQUER( $p$ )                                ▷ Input problem as p
2:   if  $|p| \leq n_0$  then                                          ▷ If p is small enough, deal with it
3:     return(Adhoc( $p$ ))
4:   end if
5:   Divide  $p$  into sub-problems:  $p_1, p_2, \dots, p_k$ 
6:   for  $i \leftarrow 1$  to  $k$  do
7:      $y_i \leftarrow$  Divide-and-Conquer( $p_i$ )                      ▷ Deal with  $p_i$  recursively
8:   end for
9:    $T \leftarrow$  Merge( $y_1, y_2, \dots, y_k$ )                        ▷ Merge sub-problems
10:  return  $T$ 
11: end function

```

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data1	data2	data3
sex	10	3
hell	9	6

表 1: algorithm's table

### 1.3 Flowchart



图 1: algorithm's flowchart

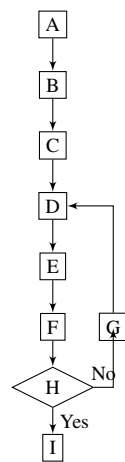


图 2: flowchart2

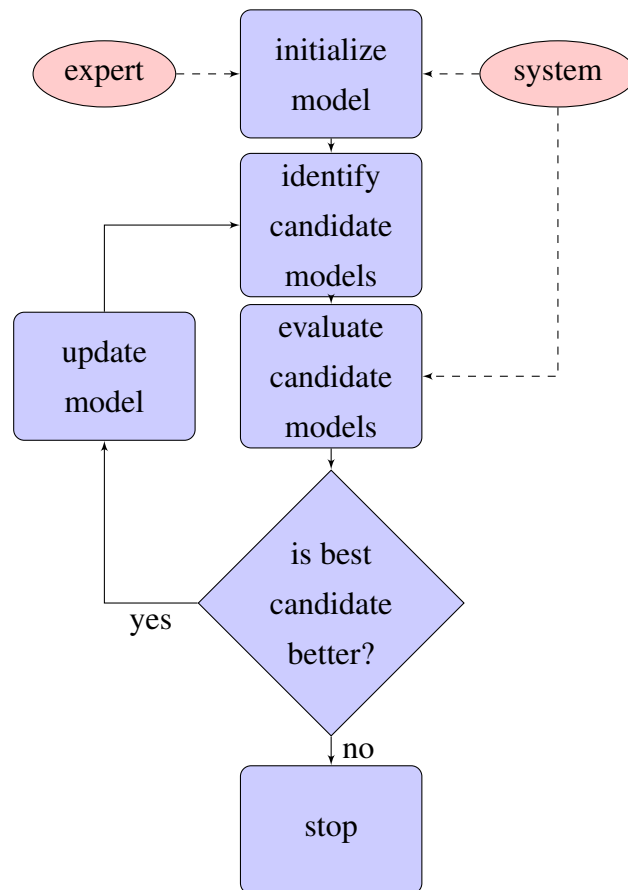


图 3: flowchart3

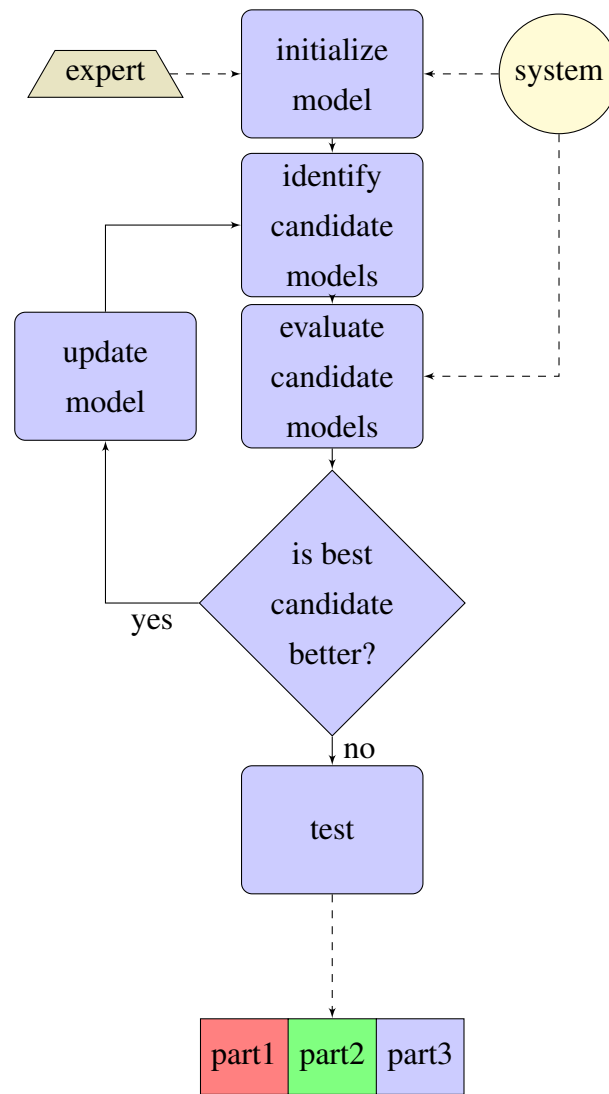


图 4: flowchart4