













1990年12月15日

1. The first step is to identify the problem. This involves understanding the situation, identifying the problem, and determining the goal.

2. The second step is to analyze the problem. This involves identifying the causes of the problem, identifying the stakeholders, and identifying the resources.

3. The third step is to develop a solution. This involves identifying the possible solutions, evaluating the solutions, and selecting the best solution.

4. The fourth step is to implement the solution. This involves developing a plan, implementing the plan, and monitoring the results.

5. The fifth step is to evaluate the results. This involves comparing the results to the goal, identifying the strengths and weaknesses, and identifying the lessons learned.









PREFIX recipe: <http://example.com/food/recipe/>  
PREFIX food: <http://example.com/food/types/>

SELECT ?recipe  
WHERE {  
 ?recipe recipe:ingredient ?i .  
 ?i recipe:type food:flour .  
 ?i recipe:unit recipe:cups .  
 ?i recipe:quantity ?q .  
 FILTER (?q <= 2) }

Query

▶ All recipes using  $\leq 2$  cups of flour

```
:find ?recipe
:where  [?recipe :ingredient ?i]
        [?i :type :flour]
        [?i :unit :cups]
        [?i :quantity ?q]
        [(<= ?q 2)]
```



# Query

- All recipes using  $\leq 2$  cups of flour

```
PREFIX recipe: <http://example.com/food/recipe/>
```

```
PREFIX food: <http://example.com/food/types/>
```

```
SELECT ?recipe
```

```
WHERE {
```

```
  ?recipe recipe:ingredient ?i .
```

```
  ?i recipe:type food:flour .
```

```
  ?i recipe:unit recipe:cups .
```

```
  ?i recipe:quantity ?q .
```

```
  FILTER (?q <= 2) }
```



# Database Requirements

- ▶ Storage
- ▶ Finding Data from Patterns
- ▶ Join operations
- ▶ Filter operations
- ▶ Graph algorithms  
*traversal, cluster analysis, etc.*