**Rules**

There are 5 rules in this prolog.

1. **match\_with\_shelter\_type(Person\_id, Shelter).**

* return all shelter that has same type with person type.

1. **available\_shelter(Shelter, Capacity).**

* return all shelter that available(Not full).

1. **find\_possible\_shelter( Person, Shelter, Capacity, Person\_location, Shelter\_location, Distance).**

* return shelter, capacity, person\_location, shelter\_location,and distance that be available and match with person type.

1. **find\_min\_distance(Person\_id, Distance).**

* return minimum distance from list of shelter that match with person.

1. **find\_shelter(Person\_id, Shelter).**

* Return shelter that nearest, available and match with person type.

**How to run**

1. Select one of five rule that you want to know.
2. (Rules1, 3, 4, 5)Input the person\_id in the rule

This mockup data has 4 person\_id.

* person\_id(1119800063846).
* person\_id(1117599926475).
* person\_id(1117947302394).
* person\_id(1118262450340).

(Rules 2)Input the shelter in the rule

This mockup data has 10 shelter.

* shelter(sakonakorn\_school).
* shelter(konkean\_school).
* shelter(somsak\_house).
* shelter(preeda\_house).
* shelter(komkrit\_house).
* shelter(western\_hospital).
* shelter(benjamaborphit\_temple).
* shelter(pathumwan\_temple).
* shelter(somsri\_house).
* shelter(somchai\_house).

1. Then enter, you will get answer from the output.

**Output**

Rule 1:

* match\_with\_shelter\_type(1119800063846, Shelter).

Ans Shelter = sakonakorn\_school

Shelter = western\_hospital.

* match\_with\_shelter\_type(1117599926475, Shelter).

Ans Shelter = somsak\_house

Shelter = komkrit\_house

Shelter = somsri\_house.

* match\_with\_shelter\_type(1117947302394, Shelter).

Ans Shelter = preeda\_house

Shelter = benjamaborphit\_temple.

* match\_with\_shelter\_type(1118262450340, Shelter).

Ans Shelter = konkean\_school

Shelter = pathumwan\_temple

Shelter = somchai\_house.

Rule 2:

* available\_shelter(Shelter, Capacity).

Ans Shelter = sakonakorn\_school,

Capacity = 2

Shelter = somsak\_house,

Capacity = 10

Shelter = benjamaborphit\_temple,

Capacity = 100

Shelter = pathumwan\_temple,

Capacity = 4

Shelter = somsri\_house,

Capacity = 27

Shelter = somchai\_house,

Capacity = 15.

* available\_shelter(sakonakorn\_school, Capacity).

Ans Capacity = 2

* available\_shelter(konkean\_school, Capacity).

Ans false

* available\_shelter(somsak\_house, Capacity).

Ans Capacity = 10

* available\_shelter(preeda\_house, Capacity).

Ans false

* available\_shelter(komkrit\_house, Capacity).

Ans false

* available\_shelter(western\_hospital, Capacity).

Ans false

* available\_shelter(benjamaborphit\_temple, Capacity).

Ans Capacity = 100

* available\_shelter(pathumwan\_temple, Capacity).

Ans Capacity = 4

* available\_shelter(somsri\_house, Capacity).

Ans Capacity = 27

* available\_shelter(somchai\_house, Capacity).

Ans Capacity = 15

Rule 3:

* find\_possible\_shelter(1119800063846, Shelter, Capacity, Person\_location, Shelter\_location, Distance).

Ans Shelter = sakonakorn\_school,

Capacity = 2,

Person\_location = sakonakornville\_sakonakorn\_75210,

Shelter\_location = waterhouse\_sakonakorn\_10160,

Distance = 10

false.

* find\_possible\_shelter(1117599926475, Shelter, Capacity, Person\_location, Shelter\_location, Distance).

Ans Shelter = somsak\_house,

Capacity = 10,

Person\_location = meungkhonkhen\_konkean\_54910,

Shelter\_location = chatuchak\_bangkok\_10900,

Distance = 566

Shelter = somsri\_house,

Capacity = 27,

Person\_location = meungkhonkhen\_konkean\_54910,

Shelter\_location = phra\_khanongnuea\_bangkok\_10110,

Distance = 548

false.

* find\_possible\_shelter(1117947302394, Shelter, Capacity, Person\_location, Shelter\_location, Distance).

Ans Shelter = benjamaborphit\_temple,

Capacity = 100,

Person\_location = lumlukka\_pathumtani\_12130,

Shelter\_location = kohpp\_puket\_11122,

Distance = 1236

false.

* find\_possible\_shelter(1118262450340, Shelter, Capacity, Person\_location, Shelter\_location, Distance).

Ans Shelter = pathumwan\_temple,

Capacity = 4,

Person\_location = ramintra\_bangkok\_10230,

Shelter\_location = mhoshit\_pathumthani\_11500,

Distance = 74

Shelter = somchai\_house,

Capacity = 15,

Person\_location = ramintra\_bangkok\_10230,

Shelter\_location = kannayao\_bangkok\_10230,

Distance = 18.

Rule 4:

* find\_min\_distance(1119800063846, Distance).

Ans Distance = 10.

* find\_min\_distance(1117599926475, Distance).

Ans Distance = 548.

* find\_min\_distance(1117947302394, Distance).

Ans Distance = 1236.

* find\_min\_distance(1118262450340, Distance).

Ans Distance = 18.

Rule 5:

* find\_shelter(1119800063846, Shelter).

Ans Shelter = sakonakorn\_school

false.

* find\_shelter(1117599926475, Shelter).

Ans Shelter = somsri\_house

false.

* find\_shelter(1117947302394, Shelter).

Ans Shelter = benjamaborphit\_temple

false.

* find\_shelter(1118262450340, Shelter).

Ans Shelter = somchai\_house.