Logic Programming

Exercise

Represent then following as facts or rules:

a) john is a person

```
person(john).
```

peter and mary are persons

```
person(peter).
person(mary).
```

fhnw is a university

```
university(fhnw).
```

john is matriculated at fhnw

```
marticulated(john,fhnw).
```

A student is a person who is matriculated at a university.

```
student(X) :- person(X), matriculated(X,Y), university(Y).
```

Is john a student?

```
?- student(john).
True
```

Is peter a student?

```
?- student(peter).
False
```

b) knut is a person

```
person(knut).
```

«KEBI» is a class

```
class(KEBI).
```

classes are taught by teachers

```
areTaught(X,Y) :- class(X), teacher(Y).
```

john attends to class «KEBI»

```
attend(john,kebi).
```

students are attending to classes

```
student(X) :- class(Y), attend(X,Y).
```

Is John a student?

```
?- student(john).
True
```

knut teaches «KEBI»

```
teach(knut,kebi).
```

Is knut a teacher?

```
?- teacher(knut).
False
```

But with:

```
teacher(X) :- class(Y), teach(X,Y).
?- teacher(knut).
True.
```