

## F28PL1 Programming Languages Laboratory 10

Write Prolog clauses for the following scenarios:

A)

- Jake is a person
- Jill is a person
- John is a person
- Joan is a person
- Jake likes tomato
- Jill likes cheese
- Jill likes tomato
- John likes cheese
- Joan likes cheese
- Joan likes tomato
- Jake knows Jill
- Jill knows John
- John knows Joan
- Joan knows Jake
- every person knows themselves
- if a person likes cheese and that person likes tomato then they like pizza

Test your program by writing questions to check:

- i) if Jake likes pizza
- ii) which persons like pizza
- iii) which persons know other persons who likes pizza

B)

- Aberdeen is a place
- Dundee is a place
- Edinburgh is a place
- Glasgow is a place
- Kirkcaldy is a place
- St Andrews is a place
- there are 60 miles between Aberdeen and Dundee
- there are 60 miles between Dundee and Edinburgh
- there are 45 miles between St Andrews and Edinburgh
- there are 10 miles between Dundee and St Andrews
- there are 60 miles between Dundee and Aberdeen
- there are 30 miles between St Andrews and Kirkcaldy
- there are 35 miles between Kirkcaldy and Edinburgh
- there are 45 miles between Glasgow and Edinburgh
- the miles from a first place to a second place is the miles between the first place and the second place or the miles between the second place and the first place

- the distance between a first and second place is the miles from the first to the second or the miles from the first to a third place plus the distance between the third and second place

Test your program by writing questions to find distances between:

- i) Edinburgh and St Andrews
- ii) Aberdeen and Glasgow.

Note that you are not required to identify different routes between these pairs of places.