CM0377 Lecture 3: Sample runs

Sample run of owns.pl

```
E:\COURSES\Lect01-02\KBS\LECT3>sicstus
SICStus 3.7.1 (Windows_NT-4-586): Fri Jan 08 09:44:23 1999
Licensed to cs.cf.ac.uk
| ?- [owns].
{consulting e:/courses/lect01-02/kbs/lect3/owns.pl...}
{e:/courses/lect01-02/kbs/lect3/owns.pl consulted, 30 msec 2328
bytes}

yes
| ?- owns(bill, X).

X = book('A.N. Other','The laws of confusion','Thomson',1993) ? ;

X = car('Vauxhall','Cavalier',87000,1992) ? ;

no
| ?- owns(bill, book(Auth, Title, Pub, Year)).

Pub = 'Thomson',
Auth = 'A.N. Other',
Year = 1993,
Title = 'The laws of confusion' ? ;

no
| ?- owns(marion, X), display_item(X).
a book:
A.C. Jones
"Why I am almost perfect" Publisher: Bluffem press Year: 1998

X = book('A.C. Jones','Why I am almost perfect','Bluffem
press',1998) ? ;

no
| ?- go.
bill owns a book:
A.N. Other
"The laws of confusion" Publisher: Thomson Year: 1993
bill owns a car:
Vauxhall Cavalier Mileage: 87000 Year: 1992

marion owns a book:
A.C. Jones
"Why I am almost perfect" Publisher: Bluffem press Year: 1998

yes
| ?-
E:\COURSES\Lect01-02\KBS\LECT3>
```

Sample run of new_fam.pl

```
E:\COURSES\Lect01-02\KBS\LECT3>sicstus
SICStus 3.7.1 (Windows_NT-4-586): Fri Jan 08 09:44:23 1999
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| ?- [new_fam].
{consulting e:/courses/lect01-02/kbs/lect3/new_fam.pl...}
{e:/courses/lect01-02/kbs/lect3/new_fam.pl consulted, 0 msec 2984
bytes}

yes
| ?- parent_of(bill, X).

X = list(jim,list(albert,empty)) ? ;

no
| ?- member(albert, list(jim, list(albert, empty))).

yes
| ?- member(X, list(jim, list(albert, empty))).

X = jim ? ;

X = albert ? ;

no
| ?- parent_of(bill, List), member(Person, List).

List = list(jim,list(albert,empty)),
Person = jim ? ;

List = list(jim,list(albert,empty)),
Person = albert ? ;

no
| ?- father_of(F, Ch).

F = bill,
Ch = jim ? ;

F = bill,
Ch = albert ? ;

F = jim,
Ch = alice ? ;
```

```
F = jim,
Ch = fred ? ;

F = jim,
Ch = john ? ;

no
| ?- grandfather_of(bill, john).

yes
| ?-
E:\COURSES\Lect01-02\KBS\LECT3>
```

Sample queries using lists

```
E:\COURSES\Lect01-02\KBS\LECT3>sicstus
SICStus 3.7.1 (Windows_NT-4-586): Fri Jan 08 09:44:23 1999
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| ?- [1, 2, 3]=[X|Y].

X = 1,
Y = [2,3] ? ;

no
| ?- [1, 2, 3]=[X, Y|Z].

X = 1,
Y = 2,
Z = [3] ? ;

no
| ?- [a, b]=[X, Y|Z].

X = a,
Y = b,
Z = [] ? ;

no
| ?-
E:\COURSES\Lect01-02\KBS\LECT3>
```

Sample run of new_fam1.pl

```
E:\COURSES\Lect01-02\KBS\LECT3>sicstus
SICStus 3.7.1 (Windows_NT-4-586): Fri Jan 08 09:44:23 1999
Licensed to cs.cf.ac.uk
| ?- [new_fam1].
{consulting e:/courses/lect01-02/kbs/lect3/new_fam1.pl...}
{e:/courses/lect01-02/kbs/lect3/new_fam1.pl consulted, 20 msec 2920
bytes}

yes
| ?- member(1, [1, 2, 3]).

yes
| ?- member(X, [1, 2, 3]).

X = 1 ? ;

X = 2 ? ;

X = 3 ? ;

no
| ?- member(4, [1, 2, 3]).

no
| ?- member(3, L).

L = [3|_A] ? ;

L = [_A,3|_B] ? ;

L = [_A,_B,3|_C] ?

yes
| ?- parent_of(jane, X).

X = [jim,albert] ? ;

no
| ?- father_of(bill, X).

X = jim ? ;

X = albert ? ;

no
| ?-
E:\COURSES\Lect01-02\KBS\LECT3>sicstus
```