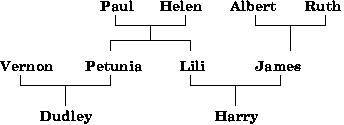
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| **Experiments** | **Topics** |
| Experiment 1 | Implementing basic logic gates in Prolog |
| Experiment 2 | Implementing human family relation using Prolog |
| ***No. 1*** | ***Tutorials/Quiz*** |
| Experiment 3 | Implementing monkey-banana problem using Prolog |
| Experiment 4 | Implement the logics for selection process in an interview using Prolog |
| ***No. 1*** | ***Tutorials/Quiz*** |
| Experiment 5 | Using Dynamic Database using Prolog |
| Experiment 6 | Implement Fibonacci number and mn value using Lisp |
| ***No. 1*** | ***Tutorials/Quiz*** |
| Experiment 7 | Implementation of AND gate with Perceptions |
| Experiment 8 | Implementation of NOR gate with Perceptions |
| ***No. 1*** | ***Tutorials/Quiz*** |
| Experiment 9 | Implementation of XOR gate with Back Propagation Neural Network |
| Experiment 10 | Implementation of Genetic Algorithm |
| ***No. 1*** | ***Tutorials/Quiz*** |
| Experiment 11 | Implementation of DFS |
| Experiment 12 | Implementation of BFS |
| ***No. 1*** | ***Tutorials/Quiz*** |
|  |  |

Experiment 1 : Implementing basic logic gates in Prolog

Experiment 2 : Implementing human family relation using Prolog

**Family relationships**

Use the predicates male/1, female/1, and parent\_of/2 to represent the following family tree as a Prolog knowledge base.



[Solution](http://cs.union.edu/~striegnk/courses/esslli04prolog/practical.day1.php?s=day1.node9.sol1)

Now, formulate rules to capture the following relationships:

* father\_of(Father,Child) and mother\_of(Mother,Child)
* grandfather\_of(Grandfather,Child) andgrandmother\_of(Grandmother,Child)
* sister\_of(Sister,Person)
* aunt\_of(Aunt,Person) and uncle\_of(Uncle,Person)

[Hint](http://cs.union.edu/~striegnk/courses/esslli04prolog/practical.day1.php?s=day1.node9.hint2)

To test your knowledge base ask all kinds of queries. For example,

* *Does Harry have an aunt? Who?*
* *Who are the grandparents of Harry?*
* *Who are the grandchildren of Paul and Helen?*
* *Does James have a sister?*
* *...*