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| **COMP-4522 ASSIGNMENT 2** |
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| Executive Summary |
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| Figure 1 |

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| Part II: Prolog |
| **Q1: Are there any employees that are "female" and that work in project "computerization" with an effort of "10" hours per week, and that have "jennifer" as a supervisor? If so, list them.**  To solve this, we used the “,” symbol to combine the female, project, and superivsor facts using AND logic. The result returned by SWI-Prolog is Alicia.    **Q2: Who is the employee who makes over 40000 dollars a year and works at the research department?**  For this question, we used the query “salary(Employee, Amount), Amount > 40000, department(Employee, research).” integrating multiple conditions with the AND operator. A salary is searched for with an amount greater than $40,000 using the Amount variable. The employee is also matched to the research department. In the end, we get a result for the Employee variable that matches our criteria.  The answer is revealed to be Franklin.    **Q3: Who is the supreme chief of this fictional company (aka the President)?**  To answer this, we needed to make a new rule as follows: |
| supreme\_chief(SupremeChief) :- supervise(SupremeChief, \_), supervise(\_, SupremeChief).  The idea here is that the SupremeChief would supervise people but would not be superevised by anyone themselves.  For the query we simply use the head supreme\_chief(SupremeChief).  The answer returned is, once again, Franklin.    **Q4: Who are the individuals that work on project "productx" with an \*effort\* of 20 or more hours a week?**  Finally, to answer this question we queried the works\_on fact with:  works\_on(Individual, productx, Hours), Hours >= 20.  This returns an answer to the Individual variable for someone who has worked on productx for over 20 hours as defined by the Hours variable.  The answer returned is John. |  |

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| Reflection |
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