

|  |
| --- |
|  |
| **COMP-4522 ASSIGNMENT 2** |
| Iyan Velji  aldo Ortiz |
| FABRIKAM TECHNOLOGY INC. | INFO@FABRIKAM.COM |

|  |  |
| --- | --- |
|  | Decorative |
| Introduction |
| Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Pellentesque id nibh tortor id aliquet. Purus in mollis nunc sed. Elit duis tristique sollicitudin nibh sit amet commodo nulla. At tellus at urna condimentum. Nunc non blandit massa enim nec dui nunc. Massa id neque aliquam vestibulum morbi blandit. Amet volutpat consequat mauris nunc congue. Nunc vel risus commodo viverra maecenas. Commodo odio aenean sed adipiscing diam donec adipiscing tristique.  Lorem ipsum dolor sit amet consectetur adipiscing. Nisi lacus sed viverra tellus. Orci eu lobortis elementum nibh tellus molestie nunc non. Laoreet suspendisse interdum consectetur libero id faucibus nisl tincidunt. Pharetra massa ultricies mi quis hendrerit dolor. Non tellus orci ac auctor augue mauris augue neque gravida. Nunc non blandit massa enim nec dui nunc mattis. Nulla malesuada pellentesque elit eget gravida cum. Sit amet nulla facilisi morbi |

|  |  |  |
| --- | --- | --- |
|  |  |  |
| For our first query we got the result of Alicia as the employee that is female, works in “computerization” with an effort of “10” hours per week, and has Jennifer as their supervisor.    Our second query returned Franklin as the employee making over $40,000 a year while working in the researcfh department.    To find the supreme chief we used two methods. The first methods found the employee with the maximum salary. The second method displayed employees without a supervisor that still supervised someone. Both methods return James as the supreme chief.    Finally, we used a SELECT statement to search for the employees who work on productx with an effort of 20 or more hours a week. The answer is John and Joyce. |  | Part I: Python and SQL |
|  |

|  |  |
| --- | --- |
|  | Decorative |
| 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 James.    **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:  findall(Individual-Hours, (works\_on(Individual, productx, Hours), Hours >= 20), Individuals), write(Individuals), nl.  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 and Joyce. |  |

|  |
| --- |
| Decorative |
| Reflection |
| Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Feugiat vivamus at augue eget. Vitae turpis massa sed elementum tempus. Bibendum enim facilisis gravida neque. Aenean euismod elementum nisi quis eleifend quam adipiscing vitae proin. Facilisi nullam vehicula ipsum a. Integer enim neque volutpat ac tincidunt vitae semper. Proin sagittis nisl rhoncus mattis rhoncus. Morbi tristique senectus et netus. Purus ut faucibus pulvinar elementum integer.  Ut ornare lectus sit amet est placerat. Tincidunt vitae semper quis lectus nulla at volutpat. Sit amet nisl suscipit adipiscing bibendum. Nunc sed id semper risus in hendrerit. Tincidunt praesent semper feugiat nibh sed pulvinar proin gravida. Sed felis eget velit aliquet sagittis. Porta lorem mollis aliquam ut porttitor leo a diam. Mattis molestie a iaculis at erat pellentesque adipiscing commodo. |
|  |
| |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | Q1 | Q2 | Q3 | Q4 | | SECTOR 1 | 4.3 | 2.5 | 3.5 | 4.5 | | SECTOR 2 | 2.4 | 4.4 | 1.8 | 2.8 | | SECTOR 3 | 2 | 2 | 3 | 5 | |
|  |
|  |