Lab Minor Question:

In the organizational context outlined, which encompasses employees, managers, administrators, and customers, the services provided revolve around delivering statistical analyses and predictive outcomes utilizing diverse databases. The organization possesses distinct data resources, including employee records, customer information, and prediction data. To meet specific security needs, design a fitting security model. Clearly outline the object subjects and associated rights based on the specifications provided below. Furthermore, offer a justification for the selected security model or models, clarifying their appropriateness in addressing the organizational context and fulfilling the specific security requirements. You can implement one or multiple models in a hybrid fashion:

1. **Employee:**
   - Read access to sensitive data like salary.
   - Edit access to personal data.
   - Implement the model to control read and edit access rights for employees.
   - Model should be aligned with the need for fine-grained access control, restricting modifications to sensitive data while allowing edits to personal information.
2. **Administrator:**
   - Full control over all data.
   - No modification rights to prediction data generated by algorithms designed by employees.
   - Apply the model that will ensures data integrity by preventing administrators from modifying prediction data, while enforcing confidentiality, allowing full access but restricting modifications based on security clearances.
3. **Customer:**
   - View access to prediction data.
   - Utilize the model to enable customers to view prediction data without compromising other sensitive information. Model should facilitate controlled delegation of rights.
4. **Managerial Privileges:**
   - Assign attributes like appraisal, tasks etc to employees.
   - Manager should receive some privileges from the administrator.
   - Implement a model for delegation of managerial tasks and the to maintain confidentiality while allowing controlled information flow.
5. **Role Hierarchy:**
   - Establish a clear hierarchy between roles (employee, manager, administrator, customer).
   - Implement a Role-Based Access Control to organize and maintain a hierarchical structure of roles. Model simplifies the assignment of rights based on roles and responsibilities.