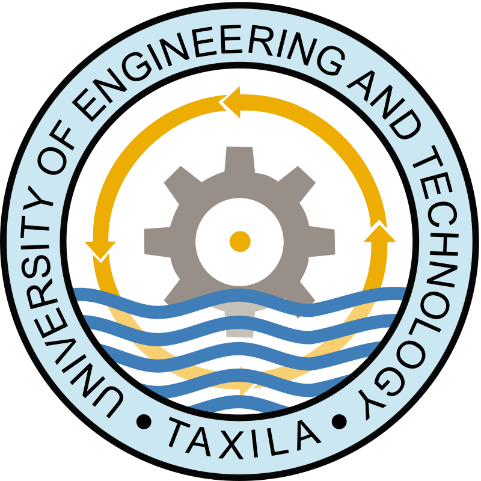
**UNIVERSITY OF ENGINERRING AND**

**TECHNOLOGY,TAXILA.**

**BSC COMPUTER ENGINERRING**

Semester: 6th



**OPEN ENDED LAB -LAB 08**

* **Submitted By: ATTIA BATOOL**
* **Reg No: 22-CP-79**
* **Section: ALPHA**
* **Lab Instructor: ENGR. MONA WASEEM**

**MACHINE LEARNING LAB (ML)**

**Summary and Recommendations**

**Key Findings:**

* When I tested the data, I noticed that employees with low salaries tend to leave more often.
* Younger employees are more likely to quit compared to older ones.
* Work-life balance and job satisfaction have a big impact on whether employees stay or leave.
* Some departments have a much higher attrition rate than others.

**Recommendations for HR:**

* Increase salaries to help keep employees from leaving.
* Offer flexible work hours to improve work-life balance.
* Create employee engagement programs to boost job satisfaction.
* Identify departments with high attrition and take steps to fix the issues.

**Conclusion:**

* I analyzed employee attrition and found that salary greatly impacts retention.
* When I tested different factors, I noticed that younger employees leave more often, likely for better opportunities.
* From my point of view, work-life balance and job satisfaction are key reasons employees stay or quit.
* I also found that some departments lose more employees than others, which made me think management or workload could be the issue.
* Based on my findings, I believe offering better salaries can help retain talent.
* I also think flexible work hours can improve work-life balance.
* In my experience, employee engagement programs boost job satisfaction.
* I suggest HR should focus on high-risk departments and understand why employees leave.
* When I tested different models, Random Forest gave the best results for predicting attrition.
* I believe using data-driven insights like this can help companies make better decisions to keep their employees.