**FINAL YEAR PROJECT – I**

***HR360-USING AI FOR SMART WORKFORCE AND PAYROLL AUTOMATION***

**TECHNICAL RISKS:**

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| **T001** | AI model for resume screening may have bias or poor accuracy in candidate selection | **Medium** | **High** | Use pre-trained models, test with sample resumes, implement simple keyword matching as backup |
| **T002** | Database performance degradation with 100+ concurrent users and large payroll calculations | **Medium** | **High** | Use lightweight database, limit concurrent users for demo, implement basic pagination |
| **T003** | Security vulnerabilities in user authentication and sensitive payroll data handling | **Medium** | **High** | Use basic password hashing, input validation, avoid storing sensitive real data |
| **T004** | Integration failures between different modules (payroll, attendance, HR) | **Medium** | **Medium** | Start with simple REST APIs, test each module separately before integration |
| **T005** | Chatbot may provide incorrect information about HR policies or leave procedures | **High** | **Medium** | Use simple rule-based responses, create FAQ database, limit chatbot scope |
| **T006** | Automated payroll calculations may have errors in tax deductions or bonus calculations | **Medium** | **High** | Use simple formulas, test with dummy data, manual verification during demo |
| **T007** | Server downtime or system crashes during peak usage periods | **Low** | **High** | Use local development setup, have backup demo data, simple error handling |

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**NON-TECHNICAL RISKS:**

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| **N001** | Team member unavailability due to illness, academic commitments, or personal issues | **Medium** | **Medium** | Cross-training team members, detailed documentation, backup resource planning |
| **N002** | Project deadline conflicts with academic calendar, exams, or other course assignments | **High** | **High** | Plan around academic calendar, buffer time allocation, early milestone completion |
| **N003** | Insufficient technical knowledge or skills in required technologies (AI, databases, security) | **Medium** | **High** | Early skill assessment, online tutorials, faculty guidance, peer learning sessions |
| **N004** | Inadequate testing due to time constraints affecting project quality | **High** | **High** | Continuous testing approach, automated testing tools, dedicated testing phases |
| **N005** | Poor project management leading to missed deadlines and uncoordinated work | **Medium** | **High** | Regular team meetings, task tracking tools, clear role definitions, milestone reviews |
| **N006** | Over-ambitious project scope exceeding available time and resources | **High** | **High** | Realistic scope definition, prioritize core features, modular development approach |

**📊 Risk Assessment :**

**Probability:** High | Medium | Low

**Impact:** High | Medium | Low