**Project Manager Database (Microsoft Access Desktop Version)**

**Overall Duration:**

**8 Weeks (2 Months)**

**Estimated Budget:**

**$2,800 – $4,500 USD** *(depending on team size, automation level, and report complexity)*

**A. Project Timeline and Budget Breakdown**

| **Phase** | **Tasks** | **Duration (Days)** | **Estimated Cost (USD)** | **Deliverables / Milestones** |
| --- | --- | --- | --- | --- |
| **1. Planning & Design Phase** | Define scope and purpose; identify entities; draw ERD; determine fields and data types; plan forms and user roles. | 5 days | $350 – $500 | Functional Requirements Document + ERD Diagram |
| **2. Database Structure Development** | Create tables; set data types, primary/foreign keys; enforce relationships; create lookup fields. | 7 days | $400 – $600 | Completed relational database (normalized tables) |
| **3. Form Development** | Design data entry forms (Projects, Tasks, Employees, Clients); main dashboard; subforms; add automation controls. | 10 days | $600 – $900 | Functional front-end interface with navigation |
| **4. Query Development** | Build parameter, action, and summary queries; implement calculated fields. | 5 days | $300 – $450 | Dynamic and reusable query library |
| **5. Report Design** | Create detailed reports (Projects, Employee workload, Client Summary, etc.); add charts, filters. | 7 days | $450 – $700 | Reporting suite (printable + dashboard view) |
| **6. Automation & VBA Programming** | Write VBA code for validation, auto calculations, and Outlook alerts; setup macros. | 8 days | $500 – $800 | Fully automated system with user interactions |
| **7. Testing & Optimization** | Enter sample data; test workflows, relationships, and reports; optimize queries. | 4 days | $250 – $400 | QA-tested, optimized, and debugged database |
| **8. Deployment & Documentation** | Split front-end/back-end; store backend on cloud/network; distribute front-end; create user manual; setup version control. | 4 days | $250 – $350 | Deployed and documented final system |

**B. Timeline Summary (8-Week Schedule)**

| **Week** | **Activity Focus** |
| --- | --- |
| **Week 1** | Planning & Design (Scope, ERD, Data Dictionary) |
| **Week 2** | Database Structure (Tables, Relationships) |
| **Week 3** | Form Development – Phase 1 (Projects, Tasks, Clients) |
| **Week 4** | Form Development – Phase 2 (Dashboard, Subforms) |
| **Week 5** | Queries (Parameter + Summary) |
| **Week 6** | Reports (Charts, Task Status, Financials) |
| **Week 7** | VBA Automation + Testing |
| **Week 8** | Deployment, Documentation, and Training |

**C. Role-Based Budget Allocation**

| **Role** | **Responsibility** | **Rate (USD/hr)** | **Approx. Hours** | **Cost Estimate (USD)** |
| --- | --- | --- | --- | --- |
| **Database Designer** | ERD, table creation, relationships | $120/hr | 40 hrs | $4,800 |
| **Access Developer** | Forms, queries, reports, macros | $130/hr | 50 hrs | $6,500 |
| **VBA Programmer** | Automation, logic, custom functions | $150/hr | 25 hrs | $3,750 |
| **Tester / QA** | Test data integrity and usability | $100/hr | 15 hrs | $1,500 |
| **Project Manager** | Oversight, scheduling, documentation | $150/hr | 10 hrs | $1,500 |
| **TOTAL ESTIMATED COST** |  |  |  | **≈ $18,050 USD** |

**D. Deliverables Summary**

| **Phase** | **Key Deliverables** |
| --- | --- |
| Planning | Scope document, ERD, Data Dictionary |
| Structure | Normalized relational tables |
| Forms | Data entry UI, subforms, dashboard |
| Queries | Dynamic parameter queries |
| Reports | Analytical reports and summaries |
| Automation | VBA-driven workflow automation |
| Testing | Validated, optimized database |
| Deployment | Live split database + user documentation |

**Optional Enhancements (Add-on Tasks)**

| **Add-On Feature** | **Description** | **Extra Time** | **Extra Cost (USD)** |
| --- | --- | --- | --- |
| **Gantt Chart Integration** | Add a dynamic Gantt chart view in reports | +3 days | +$300 |
| **Email Alerts System** | Auto email overdue tasks via Outlook | +2 days | +$200 |
| **Multi-User Role Control** | Create login-based access restrictions | +4 days | +$400 |
| **Cloud Synchronization (SharePoint)** | Store backend on SharePoint / OneDrive | +2 days | +$250 |
| **Export to Excel/PDF Automation** | One-click export of reports | +2 days | +$150 |

**F. Tools & Resources**

* **Microsoft Access 2021 / Office 365**
* **Visio / Draw.io** for ERD design
* **VBA Editor**
* **Excel / MS Project** for project planning
* **OneDrive / SharePoint** for deployment
* **GitHub or GitherHub** for version control