**PRACTICAL 3**

**Process Scheduling for veterinary DBMS**

**Gantt Chart for Veterinary DBMS Project (12 Months Timeline)**

**1. Introduction**

* **Project**: Veterinary Hospital Database Management System
* **Objective**: Develop a database management system to manage veterinary hospital operations like pet registration, doctor details, inpatient and outpatient departments, pharmacy, and billing.
* **Importance of Scheduling**: Ensuring the project is completed within 12 months while efficiently managing resources.

**2. Task Identification**

* **WBS (Work Breakdown Structure)**:
  + Requirements Gathering → Design → Database Development → Frontend Development → Backend Development → Integration → Testing → Deployment → Maintenance
* **Task Dependencies**:
  + Design follows Requirements Gathering
  + Development starts after Design
  + Integration follows Backend and Frontend Development
  + Testing starts after Integration
  + Deployment follows Testing

**3. Resource Scheduling**

* **Resources Needed**:
  + Requirements Gathering: 2 Analysts
  + Database Development: 2 Database Engineers
  + Frontend Development: 2 Developers
  + Backend Development: 3 Developers
  + Integration: 2 Developers
  + Testing: 2 Testers
  + Deployment: 1 DevOps Engineer
* **Allocation**: Assign developers to backend and frontend based on expertise.

**4. Gantt Chart Timeline**

| **Task** | **Duration** | **Start Month** | **End Month** | **Dependency** |
| --- | --- | --- | --- | --- |
| Requirements Gathering | 2 Months | Month 1 | Month 2 | - |
| Design | 2 Months | Month 3 | Month 4 | Requirements Gathering |
| Database Development | 3 Months | Month 5 | Month 7 | Design |
| Frontend Development | 4 Months | Month 5 | Month 8 | Design |
| Backend Development | 4 Months | Month 6 | Month 9 | Design |
| Integration | 1 Month | Month 10 | Month 10 | Frontend + Backend |
| Testing | 2 Months | Month 11 | Month 12 | Integration |
| Deployment | 1 Month | Month 12 | Month 12 | Testing |
| Maintenance | Ongoing | Month 12+ | - | Deployment |

**5. Monitoring**

* Weekly task progress updates
* Adjustments if tasks are delayed

**6. Conclusion**

The Gantt chart ensures timely delivery and resource optimization, aligning with the COCOMO estimation of 12 months.

