**Project Plan: PrintDesk**

## 📄 1. Project Overview

**Project Name:** PrintDesk  
**Client:** [Client Name]  
**Prepared By:** [Your Name / Organization]  
**Date:** [Insert Date]

**Description:**  
PrintDesk is a web-based analytics platform designed to allow organizations to upload and analyze printer usage data. Data is submitted via Excel files and visualized using Power BI Embedded. The system supports SSO authentication and role-based access control for three types of users: Admin, Uploader, and Viewer.

## 📚 2. Project Scope

### In Scope:

* Web portal for printer usage analytics
* Excel file upload and data ingestion
* Power BI dashboards embedded in frontend
* SSO-based login system
* Role-based access control
* Filtered views and analytics by time, user, department

### Out of Scope:

* Real-time printer integration
* Printer hardware monitoring

### Assumptions:

* Client provides Excel format and SSO setup details
* Power BI license and workspace managed by the client

## 📦 3. Deliverables

1. Web-based UI with login and dashboard
2. Excel file upload and validation feature
3. Embedded Power BI dashboards
4. Role management system (Admin, Uploader, Viewer)
5. Final documentation (User Guide, Admin Manual)
6. Project Handover Document

## 🗓️ 4. Timeline & Milestones (5-Day Plan)

| Milestone | Date | Owner |
| --- | --- | --- |
| Requirements Finalization & Design | Day 1 | All |
| Backend: DB + SSO Setup | Day 2 | All (split tasks) |
| Frontend: UI + Excel Upload | Day 3 | All (split tasks) |
| Power BI Embedding & Filtering | Day 4 | All (split tasks) |
| Testing, Documentation, Handover | Day 5 | All |

## 👨‍💼 5. Team Roles & Responsibilities

| Developer | Responsibilities |
| --- | --- |
| **Dev 1** | Frontend: Dashboard UI, Backend: SSO integration |
| **Dev 2** | Frontend: Excel Upload UI, Backend: File parsing & validation |
| **Dev 3** | Frontend: Filter controls, Backend: Filter query logic & reporting metrics |
| **Dev 4** | Frontend: Power BI embed integration, Backend: Role-based access management |

## 💬 6. Communication Plan

* **Daily Check-ins**: 9 AM - 15 min sync
* **Tools**: Microsoft Teams, GitHub for source control, Trello for task tracking
* **Client Demo & Review**: Day 5 afternoon

## 📊 7. Quality Assurance

* Test cases covering all role permissions
* Data validation for Excel uploads
* Responsive and accurate filter behavior on dashboards

**Acceptance Criteria:** - Login works as expected - Excel upload is validated and parsed - Dashboards respond correctly to filters and role permissions

## ⚠️ 8. Risk Management

| Risk | Impact | Likelihood | Mitigation |
| --- | --- | --- | --- |
| Tight timeline | High | Medium | Parallel tasking and daily coordination |
| Excel format mismatch | Medium | High | Share strict template and enforce schema |
| Power BI token expiration | Medium | Medium | Auto-refresh handling logic |

## 🔒 9. Security Plan

* SSO-based login using secure protocols
* Role enforcement in both UI and backend
* Server-side validation of all inputs and files
* Restricted access to dashboards and APIs

## 🚄 10. Deployment Plan

* Hosted on cloud or internal server (TBD)
* Flask backend with MSSQL (ODBC)
* Power BI workspace configured in client’s environment
* Containerized deployment optional

## 📃 11. Documentation

* Admin User Guide
* Excel Upload Guide
* API Reference (if applicable)
* Project Handover Document

## 📅 12. Approval

**Client Representative:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  
**Signature:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  
**Date:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Let me know if you’d like a PDF version or editable Word export.