

# PROJECT PROPOSAL

## MEDICO 360 – Complete Healthcare Management System

### 1. PROJECT OVERVIEW

MEDICO 360 is a comprehensive healthcare management system designed to digitalize and streamline clinical, administrative, and patient-centric operations of medical facilities such as clinics, hospitals, and diagnostic centers.

The system provides a centralized platform for managing patients, doctors, staff, appointments, billing, pharmacy inventory, reporting, and system security. Additionally, a Patient Application (Web/Mobile-ready) allows patients to interact directly with the healthcare facility.

### 2. OBJECTIVES

- Automate healthcare operations
- Reduce manual paperwork
- Improve patient experience
- Enhance data accuracy & security
- Provide real-time analytics and reporting
- Enable role-based access for secure operations

### 3. SCOPE OF WORK & DELIVERABLES

#### A. Admin Dashboard

- Centralized system control panel
- User & role management
- System-wide analytics overview
- Permissions & access control

#### B. Patient Management System

- Patient registration & profiles
- Medical history & visit records
- Prescription tracking
- Lab reports & documents upload
- Patient status tracking

#### C. Doctor Management

- Doctor profiles & specialization
- Availability & schedules
- Appointment access
- Patient consultation records

#### D. Staff & Employee Management

- Staff profiles & roles
- Attendance & duty management
- Department assignment

#### E. Appointment Scheduling

- Online appointment booking
- Doctor-wise scheduling
- Appointment status updates

- Notifications & reminders

## F. Billing & Invoicing

- Automated invoice generation
- Payment tracking
- Service-based billing
- Printable receipts

## G. Inventory & Pharmacy Management

- Medicine & stock management
- Expiry alerts
- Supplier records
- Sales & stock reports

## H. Reports & Analytics

- Patient reports
- Financial summaries
- Doctor performance reports
- Inventory usage reports

## I. Role-Based Access Control

- Admin
- Doctors
- Staff
- Patients
- Secure access per role

## J. System Security

- Authentication & authorization
- Encrypted passwords
- Secure APIs
- Data protection measures

# 4. PATIENT APPLICATION (WEB / MOBILE READY)

- Register & login securely
- Book appointments online
- View appointment history
- Access prescriptions & reports
- View bills & payment history
- Receive notifications & updates
- Manage personal profile
- Responsive & mobile-friendly; mobile-app-ready backend architecture

# 5. PROJECT PHASES (7 PHASE MODEL)

## Phase 1: Requirement Analysis & Planning

- Detailed requirement gathering
- Feature finalization
- Technical planning

## Phase 2: System Architecture & Database Design

- Backend architecture planning
- Database schema design
- API structure planning

### **Phase 3: UI/UX Design**

- Admin panel UI
- Patient application UI
- User experience optimization
- Design approval

### **Phase 4: Frontend Development**

- Admin dashboard development
- Patient application frontend
- Responsive UI implementation

### **Phase 5: Backend Development**

- API development
- Authentication & authorization
- Business logic implementation
- Database integration

### **Phase 6: Testing & Quality Assurance**

- Functional testing
- Security testing
- Bug fixing & optimization
- Performance testing

### **Phase 7: Deployment & Final Delivery**

- System deployment
- Final review & approval
- Source code handover
- Documentation & training support

## **6. TOOLS & TECHNOLOGIES**

### **Frontend**

- React.js
- HTML5, CSS3
- Tailwind CSS / Bootstrap

### **Backend**

- Node.js
- Express.js

### **Database**

- MongoDB

### **Authentication & Security**

- JWT (JSON Web Tokens)
- Bcrypt password encryption

## Development Tools

- Git & GitHub
- Postman (API testing)
- VS Code

## Deployment

- Cloud-based deployment (optional)
- Environment configuration

## 7. PAYMENT TERMS

- 25% Advance Payment
- 50% After Core System Completion
- 25% After Final Delivery & Deployment

## 8. PROJECT ASSUMPTIONS

- Content & requirements will be provided timely
- Scope changes may affect timeline & cost
- Hosting & domain are not included

## 9. CONCLUSION

MEDICO 360 will provide a scalable, secure, and user-friendly healthcare management solution that improves operational efficiency and enhances patient engagement. The system is designed for future expansion, including mobile applications and advanced analytics.

## 10. PROJECT TIMELINE (2 MONTHS)

Phase	Description	Duration
Phase 1	Requirement Analysis & Planning	Week 1
Phase 2	Architecture & Database Design	Week 2
Phase 3	UI/UX Design	Week 3
Phase 4	Frontend Development	Weeks 4–5
Phase 5	Backend Development	Weeks 5–6
Phase 6	Testing & QA	Week 7
Phase 7	Deployment & Handover	Week 8

## 11. PROJECT BUDGET

Component	Cost (PKR)
System Design & Planning	30,000
Frontend Development	45,000
Backend Development	55,000
Patient Application	20,000
Testing & Deployment	20,000
<b>TOTAL PROJECT COST</b>	<b>170,000</b>