

prepare a prototype (flow + structure) for a Document Management System (DMS) based on your detailed workflow (Creator Approver Issuer Controlled Access). -System Flow Chart (process steps) -Module-wise Functionality (dashboard, upload, approval, issuance, access control)-Database Design (sample schema)-User Role Permissions-Technology suggestion for development

Creator Login Fill Doc Info (ag fields)  
Upload Word Doc (No header/footer) Send to Approver (Notify)  
Approver reviews doc (with header/footer) Approve Document  
Decline (add remark) Add remarks,  
Goes back to Creator select sharing dept. Send to Issuer (MR) Issuer reviews doc (header/footer) Issue Final Copy Decline (add remark) Add Issue remark Goes back to Creator Convert to PDF (Final) Auto Notify All Users Assign Control Copy NosUsers View/Print Controlled PDF only (No download, traceable by User

ID)-----Responsibility: Module-Wise  
Functional Prototype PlanRoleFeaturesCreatorCreate new document entry, upload Word doc, view pending/returned docs, resubmitApproverView pending approvals, open doc (auto header/footer), approve/reject, add remarks, assign departmentsIssuer (MR)View approved docs, issue/reject, add final remark, track issued documentsUser/RecipientView issued documents (PDF only), print with control footerAdminManage users, roles, departments, track logs, export reportsThere is some conditions: -Auto reminders for revision (based on due period)-Comparison tool (old vs. revised doc)-Version history tracking-Export to Excel logs (per user or document)-QR code footer for

authenticity-----About Database table

need:usersColumnTypeDescriptionuser\_idINT (PK)Unique usernameVARCHARUser nameroleENUM('Creator','Approver','Issuer','User','Admin')RoledepartmentVARCHARDept nameemailVARCHARNotification documentsColumnTypeDescriptiondoc\_idINT (PK)Unique documentdoc\_nameVARCHARSOP/Format namedoc\_numberVARCHARUnique doc codedate\_of\_issueDATEIssue daterevision\_noINTRevision countdue\_period\_yearsINTReview reminderprepared\_byINT (FK)Creator IDreason\_revisionTEXTRevision reasonfile\_pathVARCHARUploaded filestatusENUM('Pending','Approved','Declined','Issued')Current statusapprover\_idINT (FK)Assigned approverissuer\_idINT (FK)Assigned issuer document\_logColumnTypeDescriptionlog\_idINT (PK)Log entrydoc\_idINT (FK)Related documentuser\_idINT (FK)Who performed actionactionVARCHARCreated, Approved, Declined, IssuedremarksTEXTAction remarksdate\_timeDATETIMETimestamp

document\_accessColumnTypeDescriptiondoc\_idINT (FK)Documentuser\_idINT (FK)Recipientcontrol\_copy\_noVARCHARAuto serial copy no.view\_accessBOOLEANCan view PDFprint\_accessBOOLEANCan print PDFprint\_dateDATETIMETrack printed date FeatureCreatorApproverIssuerRecipientAdminCreate DocApprove DocIssue DocView PDF (Issued only)View Previous Revisions (Master copy)Export LogsLayerTechnologyFrontend (Web UI)React.js / Next.js (with Role-based Dashboard)Backend APINode.js (Express) or ASP.NET CoreDatabasePostgreSQL / SQL ServerFile StorageLocal folder or AWS S3 / Supabase StorageNotificationsEmail + In-app popup via Socket.io or Supabase RealtimeDocument ConversionLibreOffice / Word API PDF (with watermark + control footer)Audit LoggingAutomatic via middleware (store all user actions)