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can you help me create a database schema with this sql CREATE TABLE `users` (
  `user_id` int NOT NULL AUTO_INCREMENT,
  `username` varchar(50) NOT NULL,
  `email` varchar(100) NOT NULL,
  `password_hash` varchar(255) NOT NULL,
  `full_name` varchar(100) NOT NULL,
  `role_id` int NOT NULL,
  `department` varchar(100) DEFAULT NULL,
  `subject` varchar(100) DEFAULT NULL,
  `employee_id` varchar(50) DEFAULT NULL,
  `status` enum('active','inactive') DEFAULT 'active',
  `created_at` timestamp NULL DEFAULT CURRENT_TIMESTAMP,
  `updated_at` timestamp NULL DEFAULT CURRENT_TIMESTAMP ON UPDATE
CURRENT_TIMESTAMP,
  PRIMARY KEY (`user_id`),
  UNIQUE KEY `username` (`username`),
  UNIQUE KEY `email` (`email`),
  UNIQUE KEY `employee_id` (`employee_id`),
  KEY `idx_username` (`username`),
  KEY `idx_email` (`email`),
  KEY `idx_role` (`role_id`),
  KEY `idx_status` (`status`),
  KEY `idx_users_dept_subject` (`department`,`subject`),
  KEY `idx_users_role_subject` (`role_id`,`department`,`subject`),
  CONSTRAINT `users_ibfk_1` FOREIGN KEY (`role_id`) REFERENCES `roles`
(`role_id`) ON DELETE RESTRICT
) ENGINE=InnoDB AUTO_INCREMENT=5 DEFAULT CHARSET=utf8mb4
COLLATE=utf8mb4_0900_ai_ci; --
-- Table structure for table `roles`
--

DROP TABLE IF EXISTS `roles`;
/*!40101 SET @saved_cs_client      = @@character_set_client */;
/*!50503 SET character_set_client = utf8mb4 */;
CREATE TABLE `roles` (
  `role_id` int NOT NULL AUTO_INCREMENT,
  `role_name` varchar(50) NOT NULL,
  `description` text,
  `permissions` json DEFAULT NULL,
  `created_at` timestamp NULL DEFAULT CURRENT_TIMESTAMP,
  `updated_at` timestamp NULL DEFAULT CURRENT_TIMESTAMP ON UPDATE
CURRENT_TIMESTAMP,
  PRIMARY KEY (`role_id`),
  UNIQUE KEY `role_name` (`role_name`)
) ENGINE=InnoDB AUTO_INCREMENT=6 DEFAULT CHARSET=utf8mb4
COLLATE=utf8mb4_0900_ai_ci;

--
-- Table structure for table `roles`
--

DROP TABLE IF EXISTS `roles`;
/*!40101 SET @saved_cs_client      = @@character_set_client */;
/*!50503 SET character_set_client = utf8mb4 */;
CREATE TABLE `roles` (
  `role_id` int NOT NULL AUTO_INCREMENT,
  `role_name` varchar(50) NOT NULL,

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        `description` text,
        `permissions` json DEFAULT NULL,
        `created_at` timestamp NULL DEFAULT CURRENT_TIMESTAMP,
        `updated_at` timestamp NULL DEFAULT CURRENT_TIMESTAMP ON UPDATE
CURRENT_TIMESTAMP,
        PRIMARY KEY (`role_id`),
        UNIQUE KEY `role_name` (`role_name`)
) ENGINE=InnoDB AUTO_INCREMENT=6 DEFAULT CHARSET=utf8mb4
COLLATE=utf8mb4_0900_ai_ci;

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CREATE TABLE `notifications` (
  `notification_id` int NOT NULL AUTO_INCREMENT,
  `user_id` int NOT NULL,
  `document_id` int DEFAULT NULL,
  `title` varchar(200) NOT NULL,
  `message` text NOT NULL,
  `type` enum('info','warning','success','error') DEFAULT 'info',
  `is_read` tinyint(1) DEFAULT '0',
  `created_at` timestamp NULL DEFAULT CURRENT_TIMESTAMP,
  `read_at` timestamp NULL DEFAULT NULL,
  PRIMARY KEY (`notification_id`),
  KEY `document_id` (`document_id`),
  KEY `idx_user` (`user_id`),
  KEY `idx_read` (`is_read`),
  KEY `idx_created` (`created_at`),
  KEY `idx_notification_user_read` (`user_id`,`is_read`),
  CONSTRAINT `notifications_ibfk_1` FOREIGN KEY (`user_id`) REFERENCES
`users` (`user_id`) ON DELETE CASCADE,
  CONSTRAINT `notifications_ibfk_2` FOREIGN KEY (`document_id`) REFERENCES
`documents` (`document_id`) ON DELETE CASCADE
) ENGINE=InnoDB AUTO_INCREMENT=8 DEFAULT CHARSET=utf8mb4
COLLATE=utf8mb4_0900_ai_ci;

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CREATE TABLE `documenttypes` (
  `doc_type_id` int NOT NULL AUTO_INCREMENT,
  `type_name` varchar(100) NOT NULL,
  `description` text,
  `requires_department` tinyint(1) DEFAULT '0',
  `initial_status` varchar(50) DEFAULT 'Submitted',
  `created_at` timestamp NULL DEFAULT CURRENT_TIMESTAMP,
  `updated_at` timestamp NULL DEFAULT CURRENT_TIMESTAMP ON UPDATE
CURRENT_TIMESTAMP,
  PRIMARY KEY (`doc_type_id`),
  UNIQUE KEY `type_name` (`type_name`),
  KEY `idx_type_name` (`type_name`)
) ENGINE=InnoDB AUTO_INCREMENT=11 DEFAULT CHARSET=utf8mb4
COLLATE=utf8mb4_0900_ai_ci;

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CREATE TABLE `documents` (
  `document_id` int NOT NULL AUTO_INCREMENT,
  `title` varchar(200) NOT NULL,
  `description` text,
  `document_type` varchar(50) NOT NULL,
  `file_path` varchar(255) NOT NULL,
  `file_size` int DEFAULT NULL,
  `file_name` varchar(255) DEFAULT NULL,

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        `uploader_id` int NOT NULL,
        `department` varchar(100) DEFAULT NULL,
        `priority` enum('low','medium','high','urgent') DEFAULT 'medium',
        `status`
enum('pending','in_review','approved','rejected','revision_requested')
DEFAULT 'pending',
        `current_approver_id` int DEFAULT NULL,
        `remarks` text,
        `approval_deadline` date DEFAULT NULL,
        `created_at` timestamp NULL DEFAULT CURRENT_TIMESTAMP,
        `updated_at` timestamp NULL DEFAULT CURRENT_TIMESTAMP ON UPDATE
CURRENT_TIMESTAMP,
        PRIMARY KEY (`document_id`),
        KEY `current_approver_id` (`current_approver_id`),
        KEY `idx_uploader` (`uploader_id`),
        KEY `idx_status` (`status`),
        KEY `idx_type` (`document_type`),
        KEY `idx_department` (`department`),
        KEY `idx_created` (`created_at`),
        KEY `idx_doc_status_created` (`status`,`created_at`),
        CONSTRAINT `documents_ibfk_1` FOREIGN KEY (`uploader_id`) REFERENCES
`users` (`user_id`) ON DELETE RESTRICT,
        CONSTRAINT `documents_ibfk_2` FOREIGN KEY (`current_approver_id`)
REFERENCES `users` (`user_id`) ON DELETE SET NULL
) ENGINE=InnoDB AUTO_INCREMENT=8 DEFAULT CHARSET=utf8mb4
COLLATE=utf8mb4_0900_ai_ci;

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CREATE TABLE `document_signatures` (
        `signature_id` int NOT NULL,
        `document_id` int DEFAULT NULL,
        `signer_id` int DEFAULT NULL,
        `signer_name` varchar(100) DEFAULT NULL,
        `signer_role` varchar(50) DEFAULT NULL,
        `signer_department` varchar(100) DEFAULT NULL,
        `signer_subject` varchar(100) DEFAULT NULL,
        `approval_level` int DEFAULT NULL,
        `signature_hash` varchar(64) DEFAULT NULL,
        `signed_at` timestamp NULL DEFAULT NULL,
        PRIMARY KEY (`signature_id`),
        UNIQUE KEY `signature_hash` (`signature_hash`)
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4_0900_ai_ci;

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CREATE TABLE `departments` (
        `department_id` int NOT NULL AUTO_INCREMENT,
        `department_name` varchar(100) NOT NULL,
        `description` text,
        `created_at` timestamp NULL DEFAULT CURRENT_TIMESTAMP,
        `updated_at` timestamp NULL DEFAULT CURRENT_TIMESTAMP ON UPDATE
CURRENT_TIMESTAMP,
        PRIMARY KEY (`department_id`),
        UNIQUE KEY `department_name` (`department_name`),
        KEY `idx_department_name` (`department_name`)
) ENGINE=InnoDB AUTO_INCREMENT=16 DEFAULT CHARSET=utf8mb4
COLLATE=utf8mb4_0900_ai_ci;

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CREATE TABLE `approvals` (

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    `approval_id` int NOT NULL AUTO_INCREMENT,
    `document_id` int NOT NULL,
    `approver_id` int NOT NULL,
    `approval_level` int NOT NULL,
    `status` enum('pending','approved','rejected','revision_requested') DEFAULT
'pending',
    `comments` text,
    `decision_date` timestamp NULL DEFAULT NULL,
    `notified_at` timestamp NULL DEFAULT NULL,
    `created_at` timestamp NULL DEFAULT CURRENT_TIMESTAMP,
    `updated_at` timestamp NULL DEFAULT CURRENT_TIMESTAMP ON UPDATE
CURRENT_TIMESTAMP,
    PRIMARY KEY (`approval_id`),
    KEY `idx_document` (`document_id`),
    KEY `idx_approver` (`approver_id`),
    KEY `idx_status` (`status`),
    KEY `idx_level` (`approval_level`),
    KEY `idx_approval_status_level` (`status`,`approval_level`),
    CONSTRAINT `approvals_ibfk_1` FOREIGN KEY (`document_id`) REFERENCES
`documents` (`document_id`) ON DELETE CASCADE,
    CONSTRAINT `approvals_ibfk_2` FOREIGN KEY (`approver_id`) REFERENCES
`users` (`user_id`) ON DELETE RESTRICT
) ENGINE=InnoDB AUTO_INCREMENT=9 DEFAULT CHARSET=utf8mb4
COLLATE=utf8mb4_0900_ai_ci;

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CREATE TABLE `approval_matrix` (
    `matrix_id` int NOT NULL AUTO_INCREMENT,
    `document_type` varchar(50) DEFAULT NULL,
    `department` varchar(100) DEFAULT NULL,
    `approval_level` int NOT NULL,
    `role_id` int NOT NULL,
    `is_required` tinyint(1) DEFAULT '1',
    `can_skip` tinyint(1) DEFAULT '0',
    `created_at` timestamp NULL DEFAULT CURRENT_TIMESTAMP,
    `updated_at` timestamp NULL DEFAULT CURRENT_TIMESTAMP ON UPDATE
CURRENT_TIMESTAMP,
    PRIMARY KEY (`matrix_id`),
    KEY `role_id` (`role_id`),
    KEY `idx_doc_type` (`document_type`),
    KEY `idx_department` (`department`),
    KEY `idx_level` (`approval_level`),
    CONSTRAINT `approval_matrix_ibfk_1` FOREIGN KEY (`role_id`) REFERENCES
`roles` (`role_id`) ON DELETE CASCADE
) ENGINE=InnoDB AUTO_INCREMENT=4 DEFAULT CHARSET=utf8mb4
COLLATE=utf8mb4_0900_ai_ci;

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