

```
DROP DATABASE IF EXISTS ProFlowDatabase;  
CREATE DATABASE ProFlowDatabase;  
USE ProFlowDatabase;
```

-- Create Profile table

```
CREATE TABLE IF NOT EXISTS `Profile` (  
  `id` INT NOT NULL AUTO_INCREMENT,  
  `name` VARCHAR(100) NOT NULL,  
  `lastName` VARCHAR(100) NOT NULL,  
  `email` VARCHAR(255) NOT NULL,  
  `password` VARCHAR(255) NOT NULL,  
  `created_date` DATETIME NOT NULL DEFAULT CURRENT_TIMESTAMP,  
  PRIMARY KEY (`id`),  
  UNIQUE INDEX `email` (`email` ASC)  
);
```

-- Create Project table with added columns and modified schema

```
CREATE TABLE IF NOT EXISTS `Project` (  
  `id` INT NOT NULL AUTO_INCREMENT,  
  `name` VARCHAR(100) NOT NULL,  
  `description` TEXT NOT NULL,  
  `start_date` DATE NOT NULL,  
  `end_date` DATE NOT NULL,  
  `profile_id` INT NOT NULL,  
  `budget` DOUBLE NOT NULL,  
  `total_est_hours` INT NOT NULL,  
  `actual_price` DOUBLE NOT NULL,  
  `created_date` DATETIME NOT NULL DEFAULT CURRENT_TIMESTAMP,  
  `status` ENUM('ACTIVE', 'INACTIVE') NOT NULL DEFAULT 'ACTIVE',  
  PRIMARY KEY (`id`),  
  INDEX `profile_id` (`profile_id` ASC),  
  CONSTRAINT `Project_ibfk_1`  
    FOREIGN KEY (`profile_id`)  
    REFERENCES `Profile` (`id`),  
  CONSTRAINT `chk_project_dates` CHECK (`end_date` > `start_date`),  
  CONSTRAINT `chk_project_budget` CHECK (`budget` >= 0)  
);
```

-- Create SubProject table with updated columns

```
CREATE TABLE IF NOT EXISTS `SubProject` (  
  `id` INT NOT NULL AUTO_INCREMENT,  
  `name` VARCHAR(100) NOT NULL,  
  `description` TEXT NOT NULL,  
  `start_date` DATE NOT NULL,  
  `end_date` DATE NOT NULL,  
  `assigned_to` VARCHAR(255) NOT NULL,  
  `project_id` INT NOT NULL,
```

```

`actual_price` DOUBLE NOT NULL,
`budget` DOUBLE NOT NULL,
`total_est_hours` INT NOT NULL,
`created_date` DATETIME NOT NULL DEFAULT CURRENT_TIMESTAMP,
`status` ENUM('ACTIVE', 'INACTIVE') NOT NULL DEFAULT 'ACTIVE',
PRIMARY KEY (`id`),
INDEX `project_id` (`project_id` ASC),
CONSTRAINT `SubProject_ibfk_1`
  FOREIGN KEY (`project_id`)
    REFERENCES `Project` (`id`),
CONSTRAINT `chk_subproject_dates` CHECK (`end_date` > `start_date`),
CONSTRAINT `chk_subproject_budget` CHECK (`budget` >= 0)
);

```

-- Create Tasks table with updated references

```

CREATE TABLE IF NOT EXISTS `Task` (
  `id` INT NOT NULL AUTO_INCREMENT,
  `name` VARCHAR(100) NOT NULL,
  `description` TEXT NOT NULL,
  `start_date` DATE NOT NULL,
  `end_date` DATE NOT NULL,
  `assigned_to` VARCHAR(255) NOT NULL,
  `sub_project_id` INT NOT NULL,
  `price` DOUBLE NOT NULL DEFAULT 0,
  `total_est_hours` INT NOT NULL,
  `location` VARCHAR(255) NOT NULL,
  `created_date` DATETIME NOT NULL DEFAULT CURRENT_TIMESTAMP,
  `status` ENUM('ACTIVE', 'INACTIVE') NOT NULL DEFAULT 'ACTIVE',
  PRIMARY KEY (`id`),
  INDEX `sub_project_id` (`sub_project_id` ASC),
  CONSTRAINT `Task_ibfk_1`
    FOREIGN KEY (`sub_project_id`)
      REFERENCES `SubProject` (`id`),
  CONSTRAINT `chk_task_dates` CHECK (`end_date` > `start_date`),
  CONSTRAINT `chk_task_price` CHECK (`price` >= 0)
);

```