

## Section 3: Relational Schema

```
CREATE TABLE `booking_status_types` (  
  `id` int(11) unsigned NOT NULL AUTO_INCREMENT,  
  `status_type_name` varchar(50) NOT NULL DEFAULT "",  
  PRIMARY KEY (`id`)  
)
```

```
CREATE TABLE `bookings` (  
  `id` int(11) unsigned NOT NULL AUTO_INCREMENT,  
  `consumer_id` int(11) unsigned NOT NULL,  
  `property_id` int(11) unsigned NOT NULL,  
  `start_date` date NOT NULL,  
  `end_date` date NOT NULL,  
  `status_id` int(2) unsigned NOT NULL,  
  PRIMARY KEY (`id`),  
  KEY `consumer_id` (`consumer_id`),  
  KEY `property_id` (`property_id`),  
  KEY `status_id` (`status_id`),  
  CONSTRAINT `bookings_ibfk_1` FOREIGN KEY (`consumer_id`) REFERENCES `users` (`id`),  
  CONSTRAINT `bookings_ibfk_2` FOREIGN KEY (`property_id`) REFERENCES `rental_properties` (`id`),  
  CONSTRAINT `bookings_ibfk_3` FOREIGN KEY (`status_id`) REFERENCES `booking_status_types` (`id`)  
)
```

```
CREATE TABLE `city_districts` (  
  `id` int(11) unsigned NOT NULL AUTO_INCREMENT,  
  `district_name` varchar(255) NOT NULL DEFAULT "",  
  `points_of_interest` text NOT NULL,  
  PRIMARY KEY (`id`)  
)
```

```
CREATE TABLE `degree_types` (  
  `id` int(11) unsigned NOT NULL AUTO_INCREMENT,  
  `degree_type_name` varchar(50) NOT NULL DEFAULT "",  
  PRIMARY KEY (`id`)  
)
```

```
CREATE TABLE `faculties` (  
  `id` int(11) unsigned NOT NULL AUTO_INCREMENT,  
  `faculty_name` varchar(50) NOT NULL DEFAULT "",  
  PRIMARY KEY (`id`)  
)
```

```
CREATE TABLE `rental_properties` (  
  `id` int(11) unsigned NOT NULL AUTO_INCREMENT,  
  `name` varchar(255) NOT NULL,  
  `supplier_id` int(11) unsigned NOT NULL,
```

```

`address` varchar(255) NOT NULL,
`district_id` int(11) unsigned NOT NULL,
`property_type_id` int(2) unsigned NOT NULL,
`num_guests` int(10) unsigned NOT NULL DEFAULT '0',
`num_rooms` int(10) unsigned NOT NULL DEFAULT '0',
`num_bathrooms` int(10) unsigned NOT NULL,
`price` int(5) NOT NULL,
`description` text NOT NULL,
`has_air_conditioning` tinyint(11) NOT NULL DEFAULT '0',
`has_cable_tv` tinyint(11) NOT NULL DEFAULT '0',
`has_laundry_machines` tinyint(11) NOT NULL DEFAULT '0',
`has_parking` tinyint(11) NOT NULL DEFAULT '0',
`has_gym` tinyint(11) NOT NULL DEFAULT '0',
`has_internet` tinyint(11) NOT NULL DEFAULT '0',
`pets_allowed` tinyint(11) NOT NULL DEFAULT '0',
`has_wheelchair_access` tinyint(11) NOT NULL DEFAULT '0',
`has_pool` tinyint(11) NOT NULL DEFAULT '0',
`has_transport_access` tinyint(11) NOT NULL DEFAULT '0',
`has_private_bathroom` tinyint(11) NOT NULL DEFAULT '0',
PRIMARY KEY (`id`),
KEY `district_id` (`district_id`),
KEY `supplier_id` (`supplier_id`),
KEY `property_type_id` (`property_type_id`),
CONSTRAINT `rental_properties_ibfk_1` FOREIGN KEY (`district_id`) REFERENCES `city_districts` (`id`),
CONSTRAINT `rental_properties_ibfk_2` FOREIGN KEY (`supplier_id`) REFERENCES `users` (`id`),
CONSTRAINT `rental_properties_ibfk_3` FOREIGN KEY (`property_type_id`) REFERENCES
`rental_property_types` (`id`)
)

```

```

CREATE TABLE `rental_property_types` (
  `id` int(11) unsigned NOT NULL AUTO_INCREMENT,
  `property_type_name` varchar(50) NOT NULL DEFAULT "",
  PRIMARY KEY (`id`)
)

```

```

CREATE TABLE `reviews` (
  `consumer_id` int(11) unsigned NOT NULL,
  `property_id` int(11) unsigned NOT NULL,
  `rating` int(1) unsigned NOT NULL,
  `comment` text NOT NULL,
  `reply` text NOT NULL,
  PRIMARY KEY (`consumer_id`, `property_id`),
  KEY `property_id` (`property_id`),
  CONSTRAINT `reviews_ibfk_1` FOREIGN KEY (`consumer_id`) REFERENCES `users` (`id`),
  CONSTRAINT `reviews_ibfk_2` FOREIGN KEY (`property_id`) REFERENCES `rental_properties` (`id`)
)

```

```
CREATE TABLE `users` (  
  `id` int(11) unsigned NOT NULL AUTO_INCREMENT,  
  `is_admin` tinyint(1) NOT NULL DEFAULT '0',  
  `first_name` varchar(50) NOT NULL,  
  `last_name` varchar(50) NOT NULL,  
  `email` varchar(100) NOT NULL,  
  `password` varchar(255) NOT NULL,  
  `phone_number` varchar(30) NOT NULL,  
  `grad_year` int(4) NOT NULL,  
  `faculty_id` int(2) unsigned NOT NULL,  
  `degree_type_id` int(2) unsigned NOT NULL,  
  `gender` varchar(255) NOT NULL,  
  PRIMARY KEY (`id`),  
  KEY `faculty_id` (`faculty_id`),  
  KEY `degree_type_id` (`degree_type_id`),  
  CONSTRAINT `users_ibfk_1` FOREIGN KEY (`faculty_id`) REFERENCES `faculties` (`id`),  
  CONSTRAINT `users_ibfk_2` FOREIGN KEY (`degree_type_id`) REFERENCES `degree_types` (`id`)  
)
```