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Wild Wood Apartments Security

1. Access needs for the users(Management, Apartment Manager, and Tenant)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Management Permissions | | | | | |
| Table Name | Select | Insert | Update | Delete | Constraints |
| Apartment | X | X | X | X |  |
| [Building](http://www.istwebclass.org:2082/cpsess3713349773/3rdparty/phpMyAdmin/sql.php?db=lbarinea_wildwoods_apartments&table=Building&pos=0) | X | X | X | X |  |
| [Lease](http://www.istwebclass.org:2082/cpsess3713349773/3rdparty/phpMyAdmin/sql.php?db=lbarinea_wildwoods_apartments&table=Lease&pos=0) | X | X | X | X |  |
| [MaintenanceRequest](http://www.istwebclass.org:2082/cpsess3713349773/3rdparty/phpMyAdmin/sql.php?db=lbarinea_wildwoods_apartments&table=MaintenanceRequest&pos=0) | X | X | X | X |  |
| |  |  |  | | --- | --- | --- | |  | [MaintenanceRequestDetail](http://www.istwebclass.org:2082/cpsess3713349773/3rdparty/phpMyAdmin/sql.php?db=lbarinea_wildwoods_apartments&table=MaintenanceRequestDetail&pos=0) |  | | X | X | X | X |  |
| [RentPayment](http://www.istwebclass.org:2082/cpsess3713349773/3rdparty/phpMyAdmin/sql.php?db=lbarinea_wildwoods_apartments&table=RentPayment&pos=0) | X | X | X | X |  |
| [Tenant](http://www.istwebclass.org:2082/cpsess3713349773/3rdparty/phpMyAdmin/sql.php?db=lbarinea_wildwoods_apartments&table=Tenant&pos=0) | X | X | X | X |  |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Apartment Manager Permissions | | | | | |
| Table Name | Select | Insert | Update | Delete | Constraints |
| Apartment | X\* |  |  |  | \* The apartment manager should only be able to select their own building |
| [Building](http://www.istwebclass.org:2082/cpsess3713349773/3rdparty/phpMyAdmin/sql.php?db=lbarinea_wildwoods_apartments&table=Building&pos=0) | X\* |  |  |  | \* The apartment manager should only be able to select their own building |
| [Lease](http://www.istwebclass.org:2082/cpsess3713349773/3rdparty/phpMyAdmin/sql.php?db=lbarinea_wildwoods_apartments&table=Lease&pos=0) | X | X | X\* |  | \*Only for the end date of the lease |
| [MaintenanceRequest](http://www.istwebclass.org:2082/cpsess3713349773/3rdparty/phpMyAdmin/sql.php?db=lbarinea_wildwoods_apartments&table=MaintenanceRequest&pos=0) | X\* |  |  |  |  |
| |  |  |  | | --- | --- | --- | |  | [MaintenanceRequestDetail](http://www.istwebclass.org:2082/cpsess3713349773/3rdparty/phpMyAdmin/sql.php?db=lbarinea_wildwoods_apartments&table=MaintenanceRequestDetail&pos=0) |  | | X\* | X\* | X\* |  | \* Only requests that connect to their building |
| [RentPayment](http://www.istwebclass.org:2082/cpsess3713349773/3rdparty/phpMyAdmin/sql.php?db=lbarinea_wildwoods_apartments&table=RentPayment&pos=0) | X | X |  |  |  |
| [Tenant](http://www.istwebclass.org:2082/cpsess3713349773/3rdparty/phpMyAdmin/sql.php?db=lbarinea_wildwoods_apartments&table=Tenant&pos=0) | X\* | X\* |  |  | \* Only for tenant that are in their building |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| [Tenant](http://www.istwebclass.org:2082/cpsess3713349773/3rdparty/phpMyAdmin/sql.php?db=lbarinea_wildwoods_apartments&table=Tenant&pos=0)  Permissions | | | | | |
| Table Name | Select | Insert | Update | Delete | Constraints |
| Apartment |  |  |  |  |  |
| [Building](http://www.istwebclass.org:2082/cpsess3713349773/3rdparty/phpMyAdmin/sql.php?db=lbarinea_wildwoods_apartments&table=Building&pos=0) |  |  |  |  |  |
| [Lease](http://www.istwebclass.org:2082/cpsess3713349773/3rdparty/phpMyAdmin/sql.php?db=lbarinea_wildwoods_apartments&table=Lease&pos=0) | X\* |  |  |  |  |
| [MaintenanceRequest](http://www.istwebclass.org:2082/cpsess3713349773/3rdparty/phpMyAdmin/sql.php?db=lbarinea_wildwoods_apartments&table=MaintenanceRequest&pos=0) | X\* | X | X˚ |  | ˚ Only the description for the maintenance request should be allowed to be updated  \*Only for the request that the tenant has created |
| |  |  |  | | --- | --- | --- | |  | [MaintenanceRequestDetail](http://www.istwebclass.org:2082/cpsess3713349773/3rdparty/phpMyAdmin/sql.php?db=lbarinea_wildwoods_apartments&table=MaintenanceRequestDetail&pos=0) |  | |  |  |  |  |  |
| [RentPayment](http://www.istwebclass.org:2082/cpsess3713349773/3rdparty/phpMyAdmin/sql.php?db=lbarinea_wildwoods_apartments&table=RentPayment&pos=0) | X**\*** | X |  |  | \* Only for the payment the tenant has done so far. |
| [Tenant](http://www.istwebclass.org:2082/cpsess3713349773/3rdparty/phpMyAdmin/sql.php?db=lbarinea_wildwoods_apartments&table=Tenant&pos=0) | X\* |  | X\* |  | \*Only for their information |

2.

|  |  |
| --- | --- |
| Role | Description |
| WWA\_management | Grants ownership and full permissions on all database objects. |
| WWA \_apartment | Denies access to delete on all tables. Limits apartment and building to only select. Grants select and insert for the lease, also grants limited access to insert of the lease. Limits maintenance request to only select. Limited access to select, insert, and update functions of the maintenance request detail table. Grants access to select and insert of the rent payment table. Finally, access to select and insert of the tenant table. |
| WWA\_tenant | Grants user select, insert and update permissions over select data inside the maintenance request table. Limited access to the select function of the lease table Grants user select and insert over select data inside the rent payment table. Finally, access to the tenant table is limited to select and update. |

Login and role creations:

Use Master Go

CREATE LOGIN apartment WITH PASSWORD=”WWaament” GO;

Use lbarinea\_wildwoods\_apartment GO

CREATE ROLE WWA \_apartment GO

Create;

Use Master Go

CREATE LOGIN management WITH PASSWORD=”HqW\*0wa” GO;

Use lbarinea\_wildwoods\_apartment GO

CREATE ROLE WWA \_ management GO

Create;

Use Master Go

CREATE LOGIN tenant WITH PASSWORD=”recwd@32WWA” GO;

Use lbarinea\_wildwoods\_apartment GO

CREATE ROLE WWA \_ tenant GO

Create;

4. Threat Analysis

|  |  |
| --- | --- |
| Role | Management |
| **Threat** | **Description** |
| SELECT | The ability to see personal data of tenants. |
| INSERT | Data entry or typing mistakes can make the data and reports based on the data unreliable and inaccurate. |
| UPDATE | Updating more records than intended. Changing data malicious. |
| DELETE | Accidental or malicious deletion of records |

|  |  |
| --- | --- |
| Role | apartment managers |
| **Threat** | **Description** |
| SELECT | The ability to see personal data of tenants. |
| INSERT | Data entry or typing mistakes can make the data and reports based on the data unreliable and inaccurate. |
| UPDATE | Updating more records than intended. Changing data malicious or accidental. |
| DELETE | ------------------------------------------ |

|  |  |
| --- | --- |
| Role | tenants |
| **Threat** | **Description** |
| SELECT | Accidental or malicious gaining access to see personal data of other tenant be it in their building or another building. Such as lease information, phone number or payment information |
| INSERT | The ability to accidental or malicious insert data that is not exact. |
| UPDATE | Accidental or malicious changing data about a tenant or maintenance requests |
| DELETE | ------------------------------------------ |

5. **Disaster Recovery Plan for Wild Wood Apartments**

During day to day operation a backup will be twice daily one in the morning at 7:00 a.m. another at 7:00 p.m. During the backups, a hard drive with the oldest date will be selected from a set of 10 drives. Once backup has been completed, the hard drive will then be used to make a cloud backup. When the backup to the cloud is made the hard drive will then be shipped to a secure location.

When recovery occurs the hard drive from the secure location will be retrieve. When that hard drive gets to the business, the hard drive that overwritten the earliest will be used to upload the data to the system. IF there are any issues with the system, the issues will be restored to normal operation. If there is any missing data recover that data by reviewing paper receipts, invoices the catalog and other necessary materials.

**Policies**

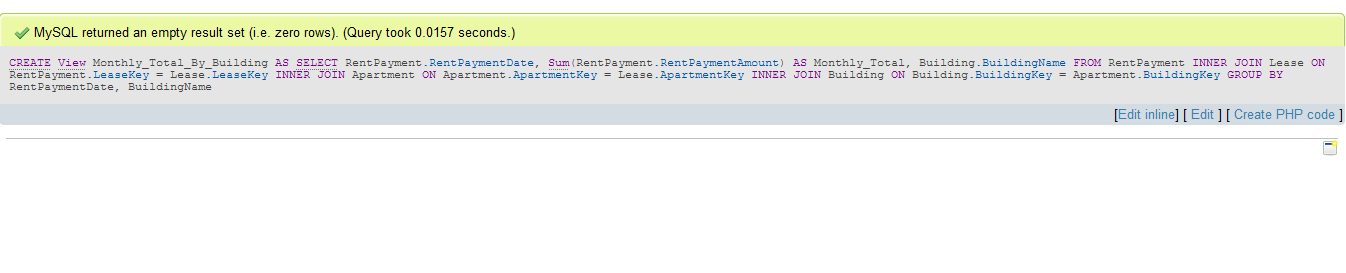
* Database server machines will have at least separate 2 physical drive and a cloud.
* Total information will be stored on the drives and a backup from that drive will be sent to the cloud.
* Backups will be done at 7:00 a.m. and p.m. respectfully
* The backup drive will be stored off-site in a secure site of Wild Woods Apartments choosing.
* The drives will be stored for 3 days before retrieving.
* The cloud will be updated twice a day at 7:00 a.m. and 7:00 p.m.
* The hard drive will be labeled with the day and time that the backup occurred before its shipped.

**Backup Procedure**

* The company will maintain 10 hard drives and a cloud.
* A round 7:00 a.m. the drive with the oldest backup data will be retrieve.
* Once the hard drive is retrieved a total backup will be placed on the drive.
* Label the drive with current data and time.
* From that hard drive make a cloud backup based on that drive.
* Once cloud and hard drive backups are completed, mail the drive to the secure location of the business choosing’s.
* Repeated backup procedures at 7:00 p.m.

**Recovery Procedure**

* If there are damages to the server machines or the computer fix the necessary problems.
* Retrieve all hard drive from the secure location.
* Restore the database with the hard that has the most recent backup date.
* Verify that the database has all necessary information to continue business.
* If there is any lost data attempt to recover the lost data by reviewing paper receipts, invoices and any other necessary materials.
* When the database is rebuilt, begin the backup procedures again

6. View to see the monthly total for buildings 

7. CREATE PROCEDURE add\_rent

@ RentPaymentKey int(4),

@ LeaseKey int(5),

@RentPayAmount double,

AS

DECLARE @Date DATE

SET @Date=GETDATE()

BEGIN TRAN

BEGIN TRY

INSERT INTO RentPayment(RentPaymentKey, RentPaymentDate, RentPaymentAmount, LeaseKey)

VALUES (RentPaymentKey ,@Date, RentPayAmount, LeaseKey)

COMMIT TRAN

END TRY

BEGIN CATCH

ROLLBACK TRAN

END CATCH