LJMU Holiday Request Database

Holiday Request Table

Holiday Request ID (Integer) Primary Key	Numer Of Days (String)	Date From (Date)	Date To (Date)	Approved? (Boolean)	User ID (Integer) Foreign Key
1	5	2012/05/15	2012/05/20	false	1
2	4	2012/04/14	2012/04/18	true	2
3	6	2012/11/05	2012/11/11	true	3
4	6	2012/05/20	2012/07/26	false	2

Users Table

User ID (Integer) Primary Key	Username (String)	Email Address (String)	Password_Hash (String)	Password_Salt (String)	Admin (Boolean)
1	enrtelsw	T.Elsworthy@2009.ljmu.ac.uk	SHA Encrypted	SHA Encrypted	false
2	enrlrobi	L.Robinson@2009.ljmu.ac.uk	SHA Encrypted	SHA Encrypted	false
3	enrashim	A.Shimmin@2009.ljmu.ac.uk	SHA Encrypted	SHA Encrypted	false
4	enrlstro	L.Strong@2009.ljmu.ac.uk	SHA Encrypted	SHA Encrypted	false
5	enrjpfin	J.P.Finlay@ljmu.ac.uk	SHA Encrypted	SHA Encrypted	false
6	admin	admin@ljmu.ac.uk	SHA Encrypted	SHA Encrypted	true

When a new holiday request is created, a unique Holiday Request ID is generated known as a Primary key. This Holiday Request ID is directly related to the User ID (foreign key). This relationship allows for a holiday request to belong to a User.

Holiday Request ID: 1 belongs to User ID: 1 who's Username is: enrtelsw
Holiday Request ID: 2 belongs to User ID: 2 who's Username is: enrlrobi
Holiday Request ID: 3 belongs to User ID: 3 who's Username is: enrashim
Holiday Request ID: 4 belongs to User ID: 2 who's Username is: enrlrobi (again)

One User can have Many Holidays this is known as a One to Many Relationship. You can see from this table that the User who has the User ID of 2 has two holiday requests.

Similiar to the Holiday Request ID field in the Holiday Request table, when a new User is created, they are assigned a unique User ID by the system. When a User creates a knew holiday, their User ID is stored in the Holiday Request table as a Foreign Key. This allows for one holiday to belong to one user.

For security purposes, the User's password is encrpyted using a hashing algorithm called Secure Hash Algorithm (SHA). This prevents the User's password appearing within the database in clear text.