Vizsgaremek – *WorkRouter*

TRAINING360

Hallgató neve: **Horváth Attila**

A választott téma rövid elnevezése: *Munkalapkezelő rendszer, készletkezeléssel.*

A rendszer célja, egy nemzetközi informatikai szolgáltatásokat nyújtó cég vállalatirányítási rendszerének az adatbázis szintű megvalósítása, a munkafolyamatok nyomon követhetőségével.

Főbb funkciók: telephely, dolgozó, alvállalkozó, ügyfél, munkalap kezelés, készletnyilvántartás, munkafolyamatok nyomkövetése, hozzárendelése dolgozókhoz.

+ Opció: Adatok átadása külső rendszernek számla elkészítéséhez.

- Több szerviz, több országban, több városban (Telephely kezelés)
- Dolgozó kezelés (Adatok, hozzáférési szintekkel, pl. belső, vagy külsős dolgozó)
- Ügyfél kezelés, extra elemekkel (Pl. Vevőkártya, kedvezmény, hírlevélre feliratkozás, stb)
- Alvállalkozók kezelése (Szegmentálva, a jogosultságokkal)

Munkalapok:

- Különböző jellegű munkalapok (Pl. szervízben elvégezhető / személyes helyszíni javítások, internet bekötések)
- Átvételi elismervények kezelése. (Hol, mikor, mit, miért és ki vett át)
- Folyamat kezelés (Ki végezte, mit végzett, milyen alkatrészeket használt fel, és mennyibe került, számlázva van-e, fizetve van-e, stb)
- Adatok átadása online kliensprogram számára.
- Javításra átvett eszközök állapotának nyomkövetése, ügyfél által is.
- Munkák hozzárendelés dolgozókhoz.
- Különböző státuszok kezelése (Pl. alkatrészre vár)
- Szolgáltatás kategóriák, árak kezelése
- Alkatrész/készlet kezelés (Kategóriák kezelése)
- Az elvégzett munka / szolgáltatás árának feltüntetése
- Különböző szolgáltatási kategóriák. (Pl. Számítógép javítás, GPON bekötés)
- Munkalap kitöltés, dolgozók/ alvállalkozók által (A megfelelő jogosultsági szint alapján)
- A munkalapok lehetnek személyesen átvett, de helyszíni munkát is tartalmazó munkák.

Készlet kezelés:

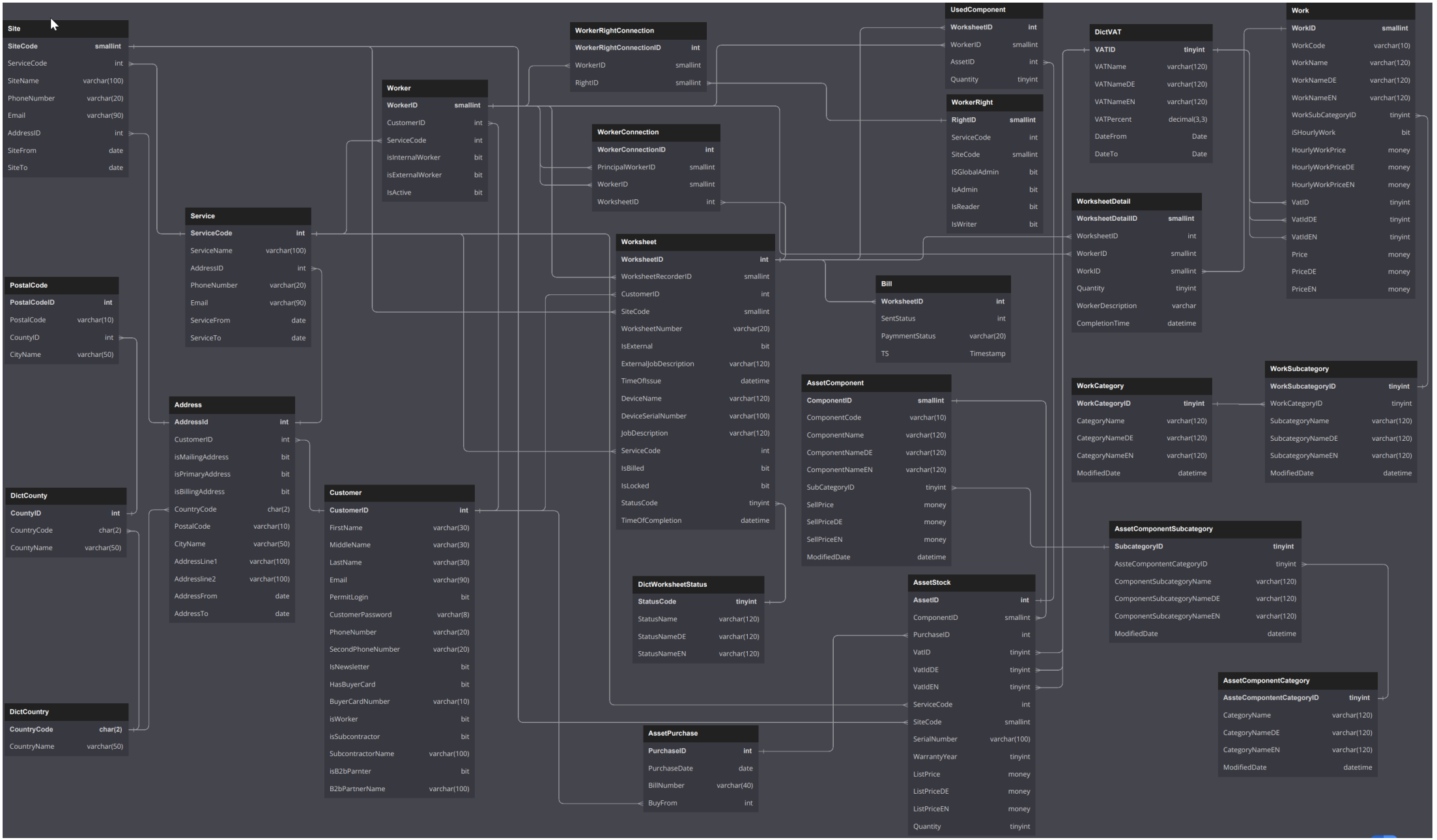
- Bevételezés, garancia kezelés
- Munkalapon felhasznált alkatrészek alapján a készlet aktualizálása
- Nagyker partnerek nyilvántartása
- Sorozatszámok nyilvántartása egy lehetséges RMA miatt

Statisztika

Különböző üzleti logika alapján statisztikai adatok lekérdezése.

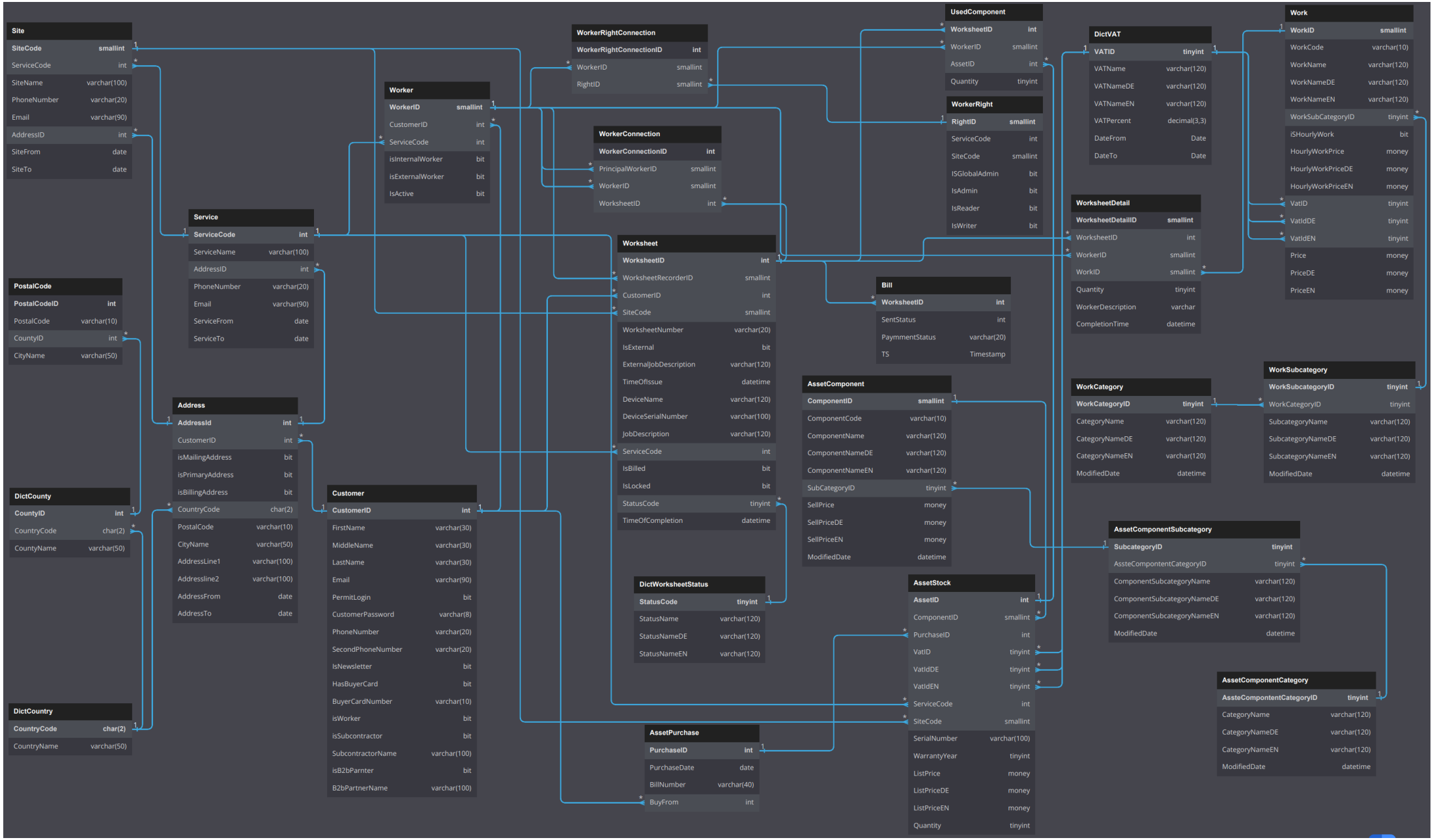
WorkRouter - Adatbázis Diagram

https://dbdiagram.io/d/63f22373296d97641d82122c



WorkRouter - Adatbázis Diagram

https://dbdiagram.io/d/63f22373296d97641d82122c



workrouter

Tartalomjegyzék

workrouter

BRYAN

Az SQL Instance fontosabb beállításai.

Databases (1)

- WorkRouter

Server Properties

Property	Value
Product	Microsoft SQL Server
Version	16.0.1000.6
Language	angol (Egyesült Államok)
Platform	NT x64
Edition	Developer Edition (64-bit)
Engine Edition	3 (Enterprise)
Processors	16
OS Version	6.3 (22621)
Physical Memory	65349
Is Clustered	False
Root Directory	C:\Program Files\Microsoft SQL Server\MSSQL16.BRYAN\MSSQL
Collation	Hungarian_CI_AS

Server Settings

Property	Value
Default data file path	C:\SQLDATA\DB\
Default backup file path	C:\SQLDATA\Backup
Default log file path	C:\SQLDATA\DB\
Recovery Interval (minutes)	0
Default index fill factor	0
Default backup media retention	0
Compress Backup	False

Advanced Server Settings

Property	Value
Full text upgrade option	0
Locks	0
Nested triggers enabled	True
Allow triggers to fire others	True
Default language	English
Network packet size	4096

Default fulltext language LCID	1033
Two-digit year cutoff	2049
Remote login timeout	10
Cursor threshold	-1
Max text replication size	65536
Parallelism cost threshold	5
Max degree of parallelism	8
Min server memory	16
Max server memory	2147483647
Scan for startup procs	False
Transform noise words	False
CLR enabled	True
Blocked process threshold	0
Filestream access level	False
Optimize for ad hoc workloads	False
CLR strict security	False

User databases

Databases (1)

- WorkRouter

WorkRouter Database

Az adatbázis alapvető beállításai.

Database Properties

Property	Value
SQL Server Version	Max
Compatibility Level	Max
Last backup time	05/06/2023
Last log backup time	-
Creation date	May 6 2023
Users	7
Database Encryption Enabled	False
Database Encryption Algorithm	None
Database size	336.00 MB
Unallocated space	9.83 MB

Database Options

Property	Value
Compatibility Level	160
Database collation	Hungarian_CI_AS
Restrict access	MULTI_USER
Is read-only	False
Auto close	False
Auto shrink	False
Database status	ONLINE
In standby	False
Cleanly shutdown	False
Supplemental logging enabled	False
Snapshot isolation state	OFF
Read committed snapshot on	False
Recovery model	FULL
Page verify option	CHECKSUM
Auto create statistics	True
Auto update statistics	True
Auto update statistics asynchronously	False
ANSI NULL default	False
ANSI NULL enabled	False
ANSI padding enabled	False
ANSI warnings enabled	False
Arithmetic abort enabled	False

Concatenating NULL yields NULL	False
Numeric roundabort enabled	False
Quoted Identifier On	False
Recursive triggers enabled	False
Close cursors on commit	False
Local cursors by default	False
Fulltext enabled	True
Trustworthy	False
Database chaining	False
Forced parameterization	False
Master key encrypted by server	False
Published	False
Subscribed	False
Merge published	False
Is distribution database	False
Sync with backup	False
Service broker GUID	f59d410a-bfb5-4f25-99e2-073b22d163a5
Service broker enabled	False
Log reuse wait	NOTHING
Date correlation	False
CDC enabled	False
Encrypted	False
Honor broker priority	False
Default language	English
Default fulltext language LCID	1033
Nested triggers enabled	True
Transform noise words	False
Two-digit year cutoff	2049
Containment	NONE
Target recovery time	60
Database owner	Bryan-Work\atira

Files

Name	Type	Size	Maxsize	Autogrowth	File Name
WorkRouter	Data	72,00 MB	unlimited	64,00 MB	C:\SQLDATA\DB\WorkRouter.mdf
WorkRouter_log	Log	264,00 MB	2048,00 GB	64,00 MB	C:\SQLDATA\DB\WorkRouter_log.ldf

Tables

Objects

Name
dbo.Address
dbo.AdImport
dbo.AssetComponent
dbo.AssetComponentCategory
dbo.AssetComponentSubcategory
dbo.AssetPurchase
dbo.AssetStock
dbo.Bill
dbo.Customer
dbo.DictCountry
dbo.DictCounty
dbo.DictVAT
dbo.DictWorksheetStatus
dbo.PostalCode
dbo.Service
dbo.Site
dbo.UsedComponent
dbo.Work
dbo.WorkCategory
dbo.Worker
dbo.WorkerConnection
dbo.WorkerRight
dbo.WorkerRightConnection
dbo.Worksheet
dbo.WorksheetDetail
dbo.WorkSubcategory

[dbo].[Address]

A címek tárolására szolgál. Megkülönböztethető az állandó levelezés és a számlázási cím is. Az adatok ellenőrzése, validálása kliens oldalon történik minden esetben, az adatbázissal történő kapcsolatfelvétel előtt a terhelés minimalizálásnak érdekében.

Properties

Property	Value
Collation	Hungarian_CI_AS
Row Count (~)	100201
Created	20:00:48 2023. május 5., péntek
Last Modified	20:00:48 2023. május 5., péntek

Columns

Key	Name	Data Type	Max Length (Bytes)	Nullability	Identity	Default
PK C	AddressId	int	4	NOT NULL	1 - 1	
FK	CustomerID	int	4	NULL allowed		
	isMailingAddress	bit	1	NULL allowed		((0))
	isPrimaryAddress	bit	1	NULL allowed		((0))
	isBillingAddress	bit	1	NULL allowed		((0))
FK	CountryCode	char(2)	2	NULL allowed		
	PostalCode	varchar(10)	10	NULL allowed		
	CityName	varchar(50)	50	NULL allowed		
	AddressLine1	varchar(100)	100	NULL allowed		
	Addressline2	varchar(100)	100	NULL allowed		
	AddressFrom	date	3	NULL allowed		
	AddressTo	date	3	NULL allowed		

Indexes

Key	Name	Key Columns	Unique
PK C	PK__Address__091C2AFB2626386F	AddressId	True

Check Constraints

Name	Constraint
CK_Address_ToDate	([AddressTo]>[AddressFrom])

Foreign Keys

Name	Columns

FK__Address__Custome__25518C17	CustomerID->[dbo].[Customer].[CustomerID]
FK__Address__Country__18EBB532	CountryCode->[dbo].[DictCountry].[CountryCode]

SQL Script

```
CREATE TABLE [dbo].[Address]
(
[AddressId] [int] NOT NULL IDENTITY(1, 1),
[CustomerID] [int] NULL,
[isMailingAddress] [bit] NULL CONSTRAINT [DF__Address__isMaili__4D94879B] DEFAULT ((0)),
[isPrimaryAddress] [bit] NULL CONSTRAINT [DF__Address__isPrima__4E88ABD4] DEFAULT ((0)),
[isBillingAddress] [bit] NULL CONSTRAINT [DF__Address__isBilli__4F7CD00D] DEFAULT ((0)),
[CountryCode] [char] (2) COLLATE Hungarian_CI_AS NULL,
[PostalCode] [varchar] (10) COLLATE Hungarian_CI_AS NULL,
[CityName] [varchar] (50) COLLATE Hungarian_CI_AS NULL,
[AddressLine1] [varchar] (100) COLLATE Hungarian_CI_AS NULL,
[Addressline2] [varchar] (100) COLLATE Hungarian_CI_AS NULL,
[AddressFrom] [date] NULL,
[AddressTo] [date] NULL
) ON [PRIMARY]
GO
ALTER TABLE [dbo].[Address] ADD CONSTRAINT [CK_Address_ToDate] CHECK (([AddressTo]>[Address-
From]))
GO
ALTER TABLE [dbo].[Address] ADD CONSTRAINT [PK__Address__091C2AFB2626386F] PRIMARY KEY
CLUSTERED ([AddressId]) ON [PRIMARY]
GO
ALTER TABLE [dbo].[Address] ADD CONSTRAINT [FK__Address__Custome__25518C17] FOREIGN KEY
([CustomerID]) REFERENCES [dbo].[Customer] ([CustomerID])
GO
ALTER TABLE [dbo].[Address] ADD CONSTRAINT [FK__Address__Country__18EBB532] FOREIGN KEY
([CountryCode]) REFERENCES [dbo].[DictCountry] ([CountryCode])
GO
```

Uses

[dbo].[Customer]
[dbo].[DictCountry]

Used By

[dbo].[Service]
[dbo].[Site]
[dbo].[vStatCustomerBuyerCard]
[dbo].[vStatCustomerCity]
[dbo].[vStatCustomerCounty]
[dbo].[CreateRandomCustomer]
[dbo].[CreateRandomWorksheet]
[dbo].[CreateWorksheet]
[dbo].[GetWorksheetBasicData]
[dbo].[LDAPImport]

[dbo].[AdImport]

Ez a tábla, tudatosan „lóg” a levegőben, igazából naplózási célokat szolgál, és egy segédtábla az LDAP szinkronizáció megvalósításához. Az LDAPImport tárolt eljárás használatához szükséges.

Itt kerülnek eltárolásra az Active Directory-ból importált felhasználói adatok, amelyek értelemszerűen a Customer táblába is átkerülnek, viszont itt tárolásra kerül a CustomerID is. Azaz pontosan visszakereshető, hogy melyik felhasználó, lett az AD-ból importálva, és mikor.

Properties

Property	Value
Collation	Hungarian_CI_AS
Row Count (~)	5
Created	15:43:24 2023. május 6., szombat
Last Modified	15:43:24 2023. május 6., szombat

Columns

Key	Name	Data Type	Max Length (Bytes)	Nullability	Identity
PK	id	int	4	NOT NULL	1 - 1
	sAMAccountName	varchar(30)	30	NOT NULL	
	firstname	varchar(30)	30	NOT NULL	
	lastname	varchar(30)	30	NOT NULL	
	email	varchar(30)	30	NOT NULL	
	country	char(2)	2	NOT NULL	
	postalcode	varchar(10)	10	NOT NULL	
	cityname	varchar(50)	50	NOT NULL	
	AddressLine1	varchar(100)	100	NOT NULL	
	PhoneNumber	varchar(20)	20	NOT NULL	
	ImportDate	datetime	8	NOT NULL	
	ModifiedDate	datetime	8	NULL allowed	
	CustomerID	int	4	NOT NULL	

Indexes

Key	Name	Key Columns	Unique
PK	PK__AdImport__3213E83F66D434F6	id	True

SQL Script

```
CREATE TABLE [dbo].[AdImport]
(
[id] [int] NOT NULL IDENTITY(1, 1),
[sAMAccountName] [varchar] (30) COLLATE Hungarian_CI_AS NOT NULL,
[firstname] [varchar] (30) COLLATE Hungarian_CI_AS NOT NULL,
```

```
[lastname] [varchar] (30) COLLATE Hungarian_CI_AS NOT NULL,
[email] [varchar] (30) COLLATE Hungarian_CI_AS NOT NULL,
[country] [char] (2) COLLATE Hungarian_CI_AS NOT NULL,
[postalcode] [varchar] (10) COLLATE Hungarian_CI_AS NOT NULL,
[cityname] [varchar] (50) COLLATE Hungarian_CI_AS NOT NULL,
[AddressLine1] [varchar] (100) COLLATE Hungarian_CI_AS NOT NULL,
[PhoneNumber] [varchar] (20) COLLATE Hungarian_CI_AS NOT NULL,
[ImportDate] [datetime] NOT NULL,
[ModifiedDate] [datetime] NULL,
[CustomerID] [int] NOT NULL
) ON [PRIMARY]
GO
ALTER TABLE [dbo].[AdImport] ADD CONSTRAINT [PK__AdImport__3213E83F66D434F6] PRIMARY KEY
CLUSTERED ([id]) ON [PRIMARY]
GO
```

Used By

[dbo].[LDAPImport]

[dbo].[AssetComponent]

Ez a tábla a szerviz által felhasználható elemeket tartalmazza. A termék leírása három különböző nyelven megadható, és az árazás is lehet régiós.

Properties

Property	Value
Collation	Hungarian_CI_AS
Row Count (~)	1
Created	20:00:48 2023. május 5., péntek
Last Modified	20:00:48 2023. május 5., péntek

Columns

Key	Name	Data Type	Max Length (Bytes)	Nullability	Identity
PK	ComponentID	smallint	2	NOT NULL	1 - 1
	ComponentCode	varchar(10)	10	NOT NULL	
	ComponentName	varchar(120)	120	NOT NULL	
	ComponentNameDE	varchar(120)	120	NOT NULL	
	ComponentNameEN	varchar(120)	120	NOT NULL	
FK	SubCategoryID	tinyint	1	NULL allowed	
	SellPrice	money	8	NULL allowed	
	SellPriceDE	money	8	NULL allowed	
	SellPriceEN	money	8	NULL allowed	
	ModifiedDate	datetime	8	NULL allowed	

Indexes

Key	Name	Key Columns	Unique
PK	PK__AssetCom__D79CF02EDD7370B0	ComponentID	True
	UQ__AssetCom__31762907B94A3847	ComponentNameEN	True
	UQ__AssetCom__3176313FF62147F4	ComponentNameDE	True
	UQ__AssetCom__898CFBF8F7FA1916	ComponentCode	True
	UQ__AssetCom__DB06D1C1EF658DC4	ComponentName	True

Foreign Keys

Name	Columns
FK__AssetComp__SubCa__1CBC4616	SubCategoryID->[dbo].[AssetComponentSubcategory].[SubcategoryID]

Permissions

Type	Action	Owning Principal
Grant	DELETE	AssetAdmin
Grant	INSERT	AssetAdmin
Grant	SELECT	AssetAdmin
Grant	UPDATE	AssetAdmin

SQL Script

```
CREATE TABLE [dbo].[AssetComponent]
(
[ComponentID] [smallint] NOT NULL IDENTITY(1, 1),
[ComponentCode] [varchar] (10) COLLATE Hungarian_CI_AS NOT NULL,
[ComponentName] [varchar] (120) COLLATE Hungarian_CI_AS NOT NULL,
[ComponentNameDE] [varchar] (120) COLLATE Hungarian_CI_AS NOT NULL,
[ComponentNameEN] [varchar] (120) COLLATE Hungarian_CI_AS NOT NULL,
[SubCategoryID] [tinyint] NULL,
[SellPrice] [money] NULL,
[SellPriceDE] [money] NULL,
[SellPriceEN] [money] NULL,
[ModifiedDate] [datetime] NULL
) ON [PRIMARY]
GO
ALTER TABLE [dbo].[AssetComponent] ADD CONSTRAINT [PK__AssetCom__D79CF02EDD7370B0] PRIMARY
KEY CLUSTERED ([ComponentID]) ON [PRIMARY]
GO
ALTER TABLE [dbo].[AssetComponent] ADD CONSTRAINT [UQ__AssetCom__898CFBF8F7FA1916] UNIQUE
NONCLUSTERED ([ComponentCode]) ON [PRIMARY]
GO
ALTER TABLE [dbo].[AssetComponent] ADD CONSTRAINT [UQ__AssetCom__DB06D1C1EF658DC4] UNIQUE
NONCLUSTERED ([ComponentName]) ON [PRIMARY]
GO
ALTER TABLE [dbo].[AssetComponent] ADD CONSTRAINT [UQ__AssetCom__3176313FF62147F4] UNIQUE
NONCLUSTERED ([ComponentNameDE]) ON [PRIMARY]
GO
ALTER TABLE [dbo].[AssetComponent] ADD CONSTRAINT [UQ__AssetCom__31762907B94A3847] UNIQUE
NONCLUSTERED ([ComponentNameEN]) ON [PRIMARY]
GO
ALTER TABLE [dbo].[AssetComponent] ADD CONSTRAINT [FK__AssetComp__SubCa__1CBC4616] FOREIGN
KEY ([SubCategoryID]) REFERENCES [dbo].[AssetComponentSubcategory] ([SubcategoryID])
GO
GRANT DELETE ON  [dbo].[AssetComponent] TO [AssetAdmin]
GO
GRANT INSERT ON  [dbo].[AssetComponent] TO [AssetAdmin]
GO
GRANT SELECT ON  [dbo].[AssetComponent] TO [AssetAdmin]
GO
GRANT UPDATE ON  [dbo].[AssetComponent] TO [AssetAdmin]
GO
```

Uses

[dbo].[AssetComponentSubcategory]

Used By

[dbo].[AssetStock]
[dbo].[GetUsedComponentsByWorksheetNumber]

[dbo].[AssetComponentCategory]

A szerviz által beépíthető, korábban már bevételezett termékek kategóriákba sorolásához készült. Három nyelven tárolható, és az esetleges módosítás dátuma tárolható.

Properties

Property	Value
Collation	Hungarian_CI_AS
Row Count (~)	2
Created	20:00:48 2023. május 5., péntek
Last Modified	20:00:48 2023. május 5., péntek

Columns

Key	Name	Data Type	Max Length (Bytes)	Nullability	Identity
PK	AssteCompontentCategoryID	tinyint	1	NOT NULL	1 - 1
	CategoryName	varchar(120)	120	NOT NULL	
	CategoryNameDE	nvarchar(120)	240	NOT NULL	
	CategoryNameEN	nvarchar(120)	240	NOT NULL	
	ModifiedDate	datetime	8	NULL allowed	

Indexes

Key	Name	Key Columns	Unique
PK	PK__AssetCom__148A92C197C9588E	AssteCompontentCategoryID	True
	UQ__AssetCom__8517B2E057D0D650	CategoryName	True
	UQ__AssetCom__C565906860E2EF4C	CategoryNameEN	True
	UQ__AssetCom__C565985076C83FB3	CategoryNameDE	True

Permissions

Type	Action	Owning Principal
Grant	DELETE	AssetAdmin
Grant	INSERT	AssetAdmin
Grant	SELECT	AssetAdmin
Grant	UPDATE	AssetAdmin

SQL Script

```
CREATE TABLE [dbo].[AssetComponentCategory]
(
[AssteCompontentCategoryID] [tinyint] NOT NULL IDENTITY(1, 1),
```

```
[CategoryName] [varchar] (120) COLLATE Hungarian_CI_AS NOT NULL,
[CategoryNameDE] [nvarchar] (120) COLLATE Hungarian_CI_AS NOT NULL,
[CategoryNameEN] [nvarchar] (120) COLLATE Hungarian_CI_AS NOT NULL,
[ModifiedDate] [datetime] NULL
) ON [PRIMARY]
GO
ALTER TABLE [dbo].[AssetComponentCategory] ADD CONSTRAINT [PK__AssetCom__148A92C197C9588E]
PRIMARY KEY CLUSTERED ([AssteCompontentCategoryID]) ON [PRIMARY]
GO
ALTER TABLE [dbo].[AssetComponentCategory] ADD CONSTRAINT [UQ__AssetCom__8517B2E057D0D650]
UNIQUE NONCLUSTERED ([CategoryName]) ON [PRIMARY]
GO
ALTER TABLE [dbo].[AssetComponentCategory] ADD CONSTRAINT [UQ__AssetCom__C565985076C83FB3]
UNIQUE NONCLUSTERED ([CategoryNameDE]) ON [PRIMARY]
GO
ALTER TABLE [dbo].[AssetComponentCategory] ADD CONSTRAINT [UQ__AssetCom__C565906860E2EF4C]
UNIQUE NONCLUSTERED ([CategoryNameEN]) ON [PRIMARY]
GO
GRANT DELETE ON  [dbo].[AssetComponentCategory] TO [AssetAdmin]
GO
GRANT INSERT ON  [dbo].[AssetComponentCategory] TO [AssetAdmin]
GO
GRANT SELECT ON  [dbo].[AssetComponentCategory] TO [AssetAdmin]
GO
GRANT UPDATE ON  [dbo].[AssetComponentCategory] TO [AssetAdmin]
GO
```

Used By

[dbo].[AssetComponentSubcategory]

[dbo].[AssetComponentSubcategory]

A szerviz által beépíthető, korábban már bevételezett termékek alkategóriákba sorolásához készült. Három nyelven tárolható, és az esetleges módosítás dátuma tárolható.

Properties

Property	Value
Collation	Hungarian_CI_AS
Row Count (~)	7
Created	20:00:48 2023. május 5., péntek
Last Modified	20:00:48 2023. május 5., péntek

Columns

Key	Name	Data Type	Max Length (Bytes)	Nullability	Identity
PK	SubcategoryID	tinyint	1	NOT NULL	1 - 1
FK	AssteCompontentCategoryID	tinyint	1	NULL allowed	
	ComponentSubcategoryName	varchar(120)	120	NOT NULL	
	ComponentSubcategoryNameDE	varchar(120)	120	NOT NULL	
	ComponentSubcategoryNameEN	varchar(120)	120	NOT NULL	
	ModifiedDate	datetime	8	NULL allowed	

Indexes

Key	Name	Key Columns	Unique
PK	PK__AssetCom__9C4E707D77F7063B	SubcategoryID	True
	UQ__AssetCom__3EEC65AADD9C2F5D	ComponentSubcategoryNameEN	True
	UQ__AssetCom__3EED61C5BACBF97B	ComponentSubcategoryNameDE	True
	UQ__AssetCom__FCC0002FFB715E7D	ComponentSubcategoryName	True

Foreign Keys

Name	Columns
FK__AssetComp__-Asste__2FCF1A8A	AssteCompontentCategoryID->[dbo].[AssetComponentCategory].[AssteCompontent-CategoryID]

Permissions

Type	Action	Owning Principal
Grant	DELETE	AssetAdmin
Grant	INSERT	AssetAdmin
Grant	SELECT	AssetAdmin

Grant	UPDATE	AssetAdmin

SQL Script

```
CREATE TABLE [dbo].[AssetComponentSubcategory]
(
[SubcategoryID] [tinyint] NOT NULL IDENTITY(1, 1),
[AssteCompontentCategoryID] [tinyint] NULL,
[ComponentSubcategoryName] [varchar] (120) COLLATE Hungarian_CI_AS NOT NULL,
[ComponentSubcategoryNameDE] [varchar] (120) COLLATE Hungarian_CI_AS NOT NULL,
[ComponentSubcategoryNameEN] [varchar] (120) COLLATE Hungarian_CI_AS NOT NULL,
[ModifiedDate] [datetime] NULL
) ON [PRIMARY]
GO
ALTER TABLE [dbo].[AssetComponentSubcategory] ADD CONSTRAINT [PK__Asset-
Com__9C4E707D77F7063B] PRIMARY KEY CLUSTERED ([SubcategoryID]) ON [PRIMARY]
GO
ALTER TABLE [dbo].[AssetComponentSubcategory] ADD CONSTRAINT [UQ__AssetCom__-
FCC0002FFB715E7D] UNIQUE NONCLUSTERED ([ComponentSubcategoryName]) ON [PRIMARY]
GO
ALTER TABLE [dbo].[AssetComponentSubcategory] ADD CONSTRAINT [UQ__Asset-
Com__3EED61C5BACBF97B] UNIQUE NONCLUSTERED ([ComponentSubcategoryNameDE]) ON [PRIMARY]
GO
ALTER TABLE [dbo].[AssetComponentSubcategory] ADD CONSTRAINT [UQ__Asset-
Com__3EEC65AADD9C2F5D] UNIQUE NONCLUSTERED ([ComponentSubcategoryNameEN]) ON [PRIMARY]
GO
ALTER TABLE [dbo].[AssetComponentSubcategory] ADD CONSTRAINT [FK__AssetComp__-
Asste__2FCF1A8A] FOREIGN KEY ([AssteCompontentCategoryID]) REFERENCES [dbo].[AssetComponent-
Category] ([AssteCompontentCategoryID])
GO
GRANT DELETE ON  [dbo].[AssetComponentSubcategory] TO [AssetAdmin]
GO
GRANT INSERT ON  [dbo].[AssetComponentSubcategory] TO [AssetAdmin]
GO
GRANT SELECT ON  [dbo].[AssetComponentSubcategory] TO [AssetAdmin]
GO
GRANT UPDATE ON  [dbo].[AssetComponentSubcategory] TO [AssetAdmin]
GO
```

Uses

[dbo].[AssetComponentCategory]

Used By

[dbo].[AssetComponent]

[dbo].[AssetPurchase]

Ez a tábla a bevételezés része, hiszen minden egyes termék egy adott B2B partnertől származik, és egyedi számlaszám tartozik hozzá.

Ez a készletkezelés alapja, hiszen tudnunk kell az adott termék forrását RMA esetén.

Properties

Property	Value
Collation	Hungarian_CI_AS
Row Count (~)	3
Created	20:00:48 2023. május 5., péntek
Last Modified	20:00:48 2023. május 5., péntek

Columns

Key	Name	Data Type	Max Length (Bytes)	Nullability	Identity	Default
PK	PurchaseID	int	4	NOT NULL	1 - 1	
	PurchaseDate	date	3	NOT NULL		(sysdatetime())
	BillNumber	varchar(40)	40	NOT NULL		
FK	BuyFrom	int	4	NOT NULL		

Indexes

Key	Name	Key Columns	Unique
PK	PK__AssetPur__6B0A6BDE8A70D8C8	PurchaseID	True
	UQ__AssetPur__C4BBE0C65C0C1AAD	BillNumber	True

Foreign Keys

Name	Columns
FK__AssetPurc__BuyFr__208CD6FA	BuyFrom->[dbo].[Customer].[CustomerID]

Permissions

Type	Action	Owning Principal
Grant	DELETE	AssetAdmin
Grant	INSERT	AssetAdmin
Grant	SELECT	AssetAdmin
Grant	UPDATE	AssetAdmin

SQL Script

```
CREATE TABLE [dbo].[AssetPurchase]
(
[PurchaseID] [int] NOT NULL IDENTITY(1, 1),
[PurchaseDate] [date] NOT NULL CONSTRAINT [DF__AssetPurc__Purch__76969D2E] DEFAULT
(sysdatetime()),
[BillNumber] [varchar] (40) COLLATE Hungarian_CI_AS NOT NULL,
[BuyFrom] [int] NOT NULL
) ON [PRIMARY]
GO
ALTER TABLE [dbo].[AssetPurchase] ADD CONSTRAINT [PK__AssetPur__6B0A6BDE8A70D8C8] PRIMARY
KEY CLUSTERED ([PurchaseID]) ON [PRIMARY]
GO
ALTER TABLE [dbo].[AssetPurchase] ADD CONSTRAINT [UQ__AssetPur__C4BBE0C65C0C1AAD] UNIQUE
NONCLUSTERED ([BillNumber]) ON [PRIMARY]
GO
ALTER TABLE [dbo].[AssetPurchase] ADD CONSTRAINT [FK__AssetPurc__BuyFr__208CD6FA] FOREIGN
KEY ([BuyFrom]) REFERENCES [dbo].[Customer] ([CustomerID])
GO
GRANT DELETE ON  [dbo].[AssetPurchase] TO [AssetAdmin]
GO
GRANT INSERT ON  [dbo].[AssetPurchase] TO [AssetAdmin]
GO
GRANT SELECT ON  [dbo].[AssetPurchase] TO [AssetAdmin]
GO
GRANT UPDATE ON  [dbo].[AssetPurchase] TO [AssetAdmin]
GO
```

Uses

[dbo].[Customer]

Used By

[dbo].[AssetStock]

[dbo].[AssetStock]

Ez maga a készlet tábla, ami a B2B partner (Customer), és az AsserPurchase tábla alapján szintén a készlet kezelés fontos része. Itt kerül tárolásra minden fontos információ, pl. sorozatszám, garancia ideje.

Országonként eltérő árak és áfa kulcsok is megadhatók, ill. maga a készlet mennyisége is itt kerül tárolásra.

A sorozatszám esetében tudatos a NULL engedése, mivel vannak olyan termékek is, amelyek nem rendelkeznek sorozatszámmal.

Properties

Property	Value
Collation	Hungarian_CI_AS
Row Count (~)	3
Created	20:00:48 2023. május 5., péntek
Last Modified	20:00:48 2023. május 5., péntek

Columns

Key	Name	Data Type	Max Length (Bytes)	Nullability	Identity	Default
PK C	AssetID	int	4	NOT NULL	1 - 1	
FK	ComponentID	smallint	2	NOT NULL		
FK	PurchaseID	int	4	NOT NULL		
FK	VatID	tinyint	1	NOT NULL		
FK	VatIdDE	tinyint	1	NOT NULL		
FK	VatIdEN	tinyint	1	NOT NULL		
FK	ServiceCode	int	4	NULL allowed		
FK	SiteCode	smallint	2	NULL allowed		
	SerialNumber	varchar(100)	100	NULL allowed		
	WarrantyYear	tinyint	1	NOT NULL		((1))
	ListPrice	money	8	NULL allowed		
	ListPriceDE	money	8	NULL allowed		
	ListPriceEN	money	8	NULL allowed		
	Quantity	tinyint	1	NOT NULL		

Indexes

Key	Name	Key Columns	Unique
PK C	PK__AssetSto__43492372C070E4DA	AssetID	True

Check Constraints

Name	Constraint

CK_AssetStock_ServiceOrSiteCode	([ServiceCode] IS NOT NULL OR [SiteCode] IS NOT NULL)

Foreign Keys

Name	Columns
FK__AssetStoc__Compo__2180FB33	ComponentID->[dbo].[AssetComponent].[ComponentID]
FK__AssetStoc__Purch__282DF8C2	PurchaseID->[dbo].[AssetPurchase].[PurchaseID]
FK__AssetStoc__VatID__3A4CA8FD	VatID->[dbo].[DictVAT].[VATID]
FK__AssetStoc__VatId__3E1D39E1	VatIdDE->[dbo].[DictVAT].[VATID]
FK__AssetStoc__VatId__3F115E1A	VatIdEN->[dbo].[DictVAT].[VATID]
FK__AssetStoc__Servi__37703C52	ServiceCode->[dbo].[Service].[ServiceCode]
FK__AssetStoc__SiteC__3864608B	SiteCode->[dbo].[Site].[SiteCode]

Permissions

Type	Action	Owning Principal
Grant	DELETE	AssetAdmin
Grant	INSERT	AssetAdmin
Grant	SELECT	AssetAdmin
Grant	UPDATE	AssetAdmin

SQL Script

```
CREATE TABLE [dbo].[AssetStock]
(
[AssetID] [int] NOT NULL IDENTITY(1, 1),
[ComponentID] [smallint] NOT NULL,
[PurchaseID] [int] NOT NULL,
[VatID] [tinyint] NOT NULL,
[VatIdDE] [tinyint] NOT NULL,
[VatIdEN] [tinyint] NOT NULL,
[ServiceCode] [int] NULL,
[SiteCode] [smallint] NULL,
[SerialNumber] [varchar] (100) COLLATE Hungarian_CI_AS NULL,
[WarrantyYear] [tinyint] NOT NULL CONSTRAINT [DF__AssetStoc__Warra__71D1E811] DEFAULT ((1)),
[ListPrice] [money] NULL,
[ListPriceDE] [money] NULL,
[ListPriceEN] [money] NULL,
[Quantity] [tinyint] NOT NULL
) ON [PRIMARY]
GO
ALTER TABLE [dbo].[AssetStock] ADD CONSTRAINT [CK_AssetStock_ServiceOrSiteCode] CHECK
(([ServiceCode] IS NOT NULL OR [SiteCode] IS NOT NULL))
GO
ALTER TABLE [dbo].[AssetStock] ADD CONSTRAINT [PK__AssetSto__43492372C070E4DA] PRIMARY KEY
CLUSTERED ([AssetID]) ON [PRIMARY]
GO
ALTER TABLE [dbo].[AssetStock] ADD CONSTRAINT [FK__AssetStoc__Compo__2180FB33] FOREIGN KEY
([ComponentID]) REFERENCES [dbo].[AssetComponent] ([ComponentID])
GO
```

```
ALTER TABLE [dbo].[AssetStock] ADD CONSTRAINT [FK__AssetStoc__Purch__282DF8C2] FOREIGN KEY
([PurchaseID]) REFERENCES [dbo].[AssetPurchase] ([PurchaseID])
GO
ALTER TABLE [dbo].[AssetStock] ADD CONSTRAINT [FK__AssetStoc__VatID__3A4CA8FD] FOREIGN KEY
([VatID]) REFERENCES [dbo].[DictVAT] ([VATID])
GO
ALTER TABLE [dbo].[AssetStock] ADD CONSTRAINT [FK__AssetStoc__VatId__3E1D39E1] FOREIGN KEY
([VatIdDE]) REFERENCES [dbo].[DictVAT] ([VATID])
GO
ALTER TABLE [dbo].[AssetStock] ADD CONSTRAINT [FK__AssetStoc__VatId__3F115E1A] FOREIGN KEY
([VatIdEN]) REFERENCES [dbo].[DictVAT] ([VATID])
GO
ALTER TABLE [dbo].[AssetStock] ADD CONSTRAINT [FK__AssetStoc__Servi__37703C52] FOREIGN KEY
([ServiceCode]) REFERENCES [dbo].[Service] ([ServiceCode])
GO
ALTER TABLE [dbo].[AssetStock] ADD CONSTRAINT [FK__AssetStoc__SiteC__3864608B] FOREIGN KEY
([SiteCode]) REFERENCES [dbo].[Site] ([SiteCode])
GO
GRANT DELETE ON  [dbo].[AssetStock] TO [AssetAdmin]
GO
GRANT INSERT ON  [dbo].[AssetStock] TO [AssetAdmin]
GO
GRANT SELECT ON  [dbo].[AssetStock] TO [AssetAdmin]
GO
GRANT UPDATE ON  [dbo].[AssetStock] TO [AssetAdmin]
GO
```

Uses

[dbo].[AssetComponent]
[dbo].[AssetPurchase]
[dbo].[DictVAT]
[dbo].[Service]
[dbo].[Site]

Used By

[dbo].[UsedComponent]
[dbo].[GetUsedComponentsByWorksheetNumber]

workrouter

[dbo].[Bill]

Ez a tábla egy későbbi esetleges számlázó rendszer részére történő adatátadás előkészítéséhez készült.

Properties

Property	Value
Collation	Hungarian_CI_AS
Row Count (~)	104822
Created	20:00:48 2023. május 5., péntek
Last Modified	20:00:48 2023. május 5., péntek

Columns

Key	Name	Data Type	Max Length (Bytes)	Nullability	Default
PK FK C	WorksheetID	int	4	NOT NULL	
	SentStatus	int	4	NULL allowed	((0))
	PaymmentStatus	varchar(20)	20	NULL allowed	
	TS	timestamp	8	NOT NULL	

Indexes

Key	Name	Key Columns	Unique
PK C	PK__Bill__58C29233183BF977	WorksheetID	True

Foreign Keys

Name	Columns
FK__Bill__WorksheetI__2DE6D218	WorksheetID->[dbo].[Worksheet].[WorksheetID]

SQL Script

```
CREATE TABLE [dbo].[Bill]
(
[WorksheetID] [int] NOT NULL,
[SentStatus] [int] NULL CONSTRAINT [DF__Bill__SentStatus__14270015] DEFAULT ((0)),
[PaymmentStatus] [varchar] (20) COLLATE Hungarian_CI_AS NULL,
[TS] [timestamp] NOT NULL
) ON [PRIMARY]
GO
ALTER TABLE [dbo].[Bill] ADD CONSTRAINT [PK__Bill__58C29233183BF977] PRIMARY KEY CLUSTERED
([WorksheetID]) ON [PRIMARY]
GO
ALTER TABLE [dbo].[Bill] ADD CONSTRAINT [FK__Bill__WorksheetI__2DE6D218] FOREIGN KEY
([WorksheetID]) REFERENCES [dbo].[Worksheet] ([WorksheetID])
GO
```

Uses

[dbo].[Worksheet]

[dbo].[Customer]

Ez egy összetett tábla. Több eltérő szerepkört is ellát. Itt kerültek eltárolásra az ügyfelek, a dolgozók, az alvállalkozók, de maguk a B2B partnerek is.

A dolgozók számára egy külön tábla is létrehozásra került a jogosultságok és a gyorsabb kereshetőség miatt. (Worker).

A különböző típusok bit-es módon vannak elkülönítve. Minden ügyfélhez van generálva egy egyedi jelszó is, ami azt a célt szolgálja, hogy az ügyfél az e-mail cím és jelszó párossal nyomon tuja követni az adott munka állapotát.

Az adatok ellenőrzése kliens oldalon kiemelten fontos a közös kezelés jellege miatt, mivel pl. ha egy B2B partnert veszünk fel nem lehet kötelezően kitöltendő mező pl. a First, Middle, LastName.

Properties

Property	Value
Collation	Hungarian_CI_AS
Row Count (~)	100011
Created	20:00:48 2023. május 5., péntek
Last Modified	21:27:22 2023. május 5., péntek

Columns

Key	Name	Data Type	Max Length (Bytes)	Nullability	Identity	Default
PK C	CustomerID	int	4	NOT NULL	1 - 1	
	FirstName	varchar(30)	30	NULL allowed		
	MiddleName	varchar(30)	30	NULL allowed		
	LastName	varchar(30)	30	NULL allowed		
	Email	varchar(90)	90	NULL allowed		
	PermitLogin	bit	1	NULL allowed		((0))
	CustomerPassword	varchar(8)	8	NULL allowed		
	PhoneNumber	varchar(20)	20	NULL allowed		
	SecondPhoneNumber	varchar(20)	20	NULL allowed		
	IsNewsletter	bit	1	NULL allowed		
	HasBuyerCard	bit	1	NULL allowed		
	BuyerCardNumber	varchar(10)	10	NULL allowed		
	isWorker	bit	1	NULL allowed		((0))
	isSubcontractor	bit	1	NULL allowed		((0))
	SubcontractorName	varchar(100)	100	NULL allowed		
	isB2bParnter	bit	1	NULL allowed		((0))
	B2bPartnerName	varchar(100)	100	NULL allowed		

Indexes

Key	Name	Key Columns	Included Columns	Unique
PK	PK__Customer__A4AE64B89861F0BD	CustomerID		True
	UQ__Customer__85FB4E3896AC4CEE	PhoneNumber		True
	IX_Customer_Firstname	FirstName	MiddleName, LastName	

SQL Script

```
CREATE TABLE [dbo].[Customer]
(
[CustomerID] [int] NOT NULL IDENTITY(1, 1),
[FirstName] [varchar] (30) COLLATE Hungarian_CI_AS NULL,
[MiddleName] [varchar] (30) COLLATE Hungarian_CI_AS NULL,
[LastName] [varchar] (30) COLLATE Hungarian_CI_AS NULL,
[Email] [varchar] (90) COLLATE Hungarian_CI_AS NULL,
[PermitLogin] [bit] NULL CONSTRAINT [DF__Customer__Permit__38996AB5] DEFAULT ((0)),
[CustomerPassword] [varchar] (8) COLLATE Hungarian_CI_AS NULL,
[PhoneNumber] [varchar] (20) COLLATE Hungarian_CI_AS NULL,
[SecondPhoneNumber] [varchar] (20) COLLATE Hungarian_CI_AS NULL,
[IsNewsletter] [bit] NULL,
[HasBuyerCard] [bit] NULL,
[BuyerCardNumber] [varchar] (10) COLLATE Hungarian_CI_AS NULL,
[isWorker] [bit] NULL CONSTRAINT [DF__Customer__isWork__398D8EEE] DEFAULT ((0)),
[isSubcontractor] [bit] NULL CONSTRAINT [DF__Customer__isSubc__3A81B327] DEFAULT ((0)),
[SubcontractorName] [varchar] (100) COLLATE Hungarian_CI_AS NULL,
[isB2bParnter] [bit] NULL CONSTRAINT [DF__Customer__isB2bP__3B75D760] DEFAULT ((0)),
[B2bPartnerName] [varchar] (100) COLLATE Hungarian_CI_AS NULL
) ON [PRIMARY]
GO
ALTER TABLE [dbo].[Customer] ADD CONSTRAINT [PK__Customer__A4AE64B89861F0BD] PRIMARY KEY
CLUSTERED ([CustomerID]) ON [PRIMARY]
GO
CREATE NONCLUSTERED INDEX [IX_Customer_Firstname] ON [dbo].[Customer] ([FirstName]) INCLUDE
([MiddleName], [LastName]) ON [PRIMARY]
GO
ALTER TABLE [dbo].[Customer] ADD CONSTRAINT [UQ__Customer__85FB4E3896AC4CEE] UNIQUE
NONCLUSTERED ([PhoneNumber]) ON [PRIMARY]
GO
```

Used By

[dbo].[Address]
[dbo].[AssetPurchase]
[dbo].[Worker]
[dbo].[Worksheet]
[dbo].[vStatCustomerBuyerCard]
[dbo].[vStatCustomerCity]
[dbo].[vStatCustomerCounty]
[app].[GetWorksByWorksheetNumber]
[app].[GetWorksByWorksheetNumberDE]
[app].[GetWorksByWorksheetNumberEN]
[dbo].[CreateCustomer]
[dbo].[CreateRandomCustomer]

[dbo].[GetUsedComponentsByWorksheetNumber]
[dbo].[GetWorksByWorksheetNumber]
[dbo].[GetWorksheetBasicData]
[dbo].[LDAPImport]

[dbo].[DictCountry]

Szótár tábla az országok tárolásához.

Properties

Property	Value
Collation	Hungarian_CI_AS
Row Count (~)	3
Created	20:00:48 2023. május 5., péntek
Last Modified	20:00:48 2023. május 5., péntek

Columns

Key	Name	Data Type	Max Length (Bytes)	Nullability
PK	CountryCode	char(2)	2	NOT NULL
	CountryName	varchar(50)	50	NOT NULL

Indexes

Key	Name	Key Columns	Unique
PK	PK__DictCoun__5D9B0D2DC169F616	CountryCode	True
	UQ__DictCoun__E056F2019A20CC37	CountryName	True

SQL Script

```
CREATE TABLE [dbo].[DictCountry]
(
[CountryCode] [char] (2) COLLATE Hungarian_CI_AS NOT NULL,
[CountryName] [varchar] (50) COLLATE Hungarian_CI_AS NOT NULL
) ON [PRIMARY]
GO
ALTER TABLE [dbo].[DictCountry] ADD CONSTRAINT [PK__DictCoun__5D9B0D2DC169F616] PRIMARY KEY CLUSTERED ([CountryCode]) ON [PRIMARY]
GO
ALTER TABLE [dbo].[DictCountry] ADD CONSTRAINT [UQ__DictCoun__E056F2019A20CC37] UNIQUE NONCLUSTERED ([CountryName]) ON [PRIMARY]
GO
```

Used By

[dbo].[Address]
[dbo].[DictCounty]

[dbo].[DictCounty]

Szótár tábla a megyék tárolásához.

Properties

Property	Value
Collation	Hungarian_CI_AS
Row Count (~)	20
Created	20:00:48 2023. május 5., péntek
Last Modified	20:01:20 2023. május 5., péntek

Columns

Key	Name	Data Type	Max Length (Bytes)	Nullability	Identity
PK C	CountyID	int	4	NOT NULL	1 - 1
FK	CountryCode	char(2)	2	NULL allowed	
	CountyName	varchar(50)	50	NOT NULL	

Indexes

Key	Name	Key Columns	Unique
PK C	PK__DictCoun__B68F9DF7A0316FF0	CountyID	True
	UQ__DictCoun__F3C40510A162E9A3	CountyName	True

Foreign Keys

Name	No Check	Columns
FK__DictCount__Count__245D67DE	True	CountryCode->[dbo].[DictCountry].[CountryCode]

SQL Script

```
CREATE TABLE [dbo].[DictCounty]
(
[CountyID] [int] NOT NULL IDENTITY(1, 1),
[CountryCode] [char] (2) COLLATE Hungarian_CI_AS NULL,
[CountyName] [varchar] (50) COLLATE Hungarian_CI_AS NOT NULL
) ON [PRIMARY]
GO
ALTER TABLE [dbo].[DictCounty] ADD CONSTRAINT [PK__DictCoun__B68F9DF7A0316FF0] PRIMARY KEY CLUSTERED ([CountyID]) ON [PRIMARY]
GO
ALTER TABLE [dbo].[DictCounty] ADD CONSTRAINT [UQ__DictCoun__F3C40510A162E9A3] UNIQUE NONCLUSTERED ([CountyName]) ON [PRIMARY]
GO
```

```
ALTER TABLE [dbo].[DictCounty] WITH NOCHECK ADD CONSTRAINT [FK__DictCount__Count__245D67DE]
FOREIGN KEY ([CountryCode]) REFERENCES [dbo].[DictCountry] ([CountryCode])
GO
```

Uses

[dbo].[DictCountry]

Used By

[dbo].[PostalCode]
[dbo].[vStatCustomerCounty]

workrouter

[dbo].[DictVAT]

Szótár tábla az ÁFA kulcsok tárolásához, eltérő országokhoz is van lehetőség eltérő áfakulcsokat rögzíteni.

Properties

Property	Value
Collation	Hungarian_CI_AS
Row Count (~)	2
Created	20:00:48 2023. május 5., péntek
Last Modified	20:00:48 2023. május 5., péntek

Columns

Key	Name	Data Type	Max Length (Bytes)	Nullability	Identity
PK	VATID	tinyint	1	NOT NULL	1 - 1
	VATName	varchar(120)	120	NULL allowed	
	VATNameDE	varchar(120)	120	NULL allowed	
	VATNameEN	varchar(120)	120	NULL allowed	
	VATPercent	decimal(3,3)	5	NOT NULL	
	DateFrom	date	3	NULL allowed	
	DateTo	date	3	NULL allowed	

Indexes

Key	Name	Key Columns	Unique
PK	PK__DictVAT__4A9628CEE03A70BE	VATID	True
	UQ__DictVAT__F2ABE2AFA21EEF0C	VATPercent	True

Check Constraints

Name	Constraint
CK_DictVAT_DateTo	([DateTo]>[DateFrom])

SQL Script

```
CREATE TABLE [dbo].[DictVAT]
(
[VATID] [tinyint] NOT NULL IDENTITY(1, 1),
[VATName] [varchar] (120) COLLATE Hungarian_CI_AS NULL,
[VATNameDE] [varchar] (120) COLLATE Hungarian_CI_AS NULL,
[VATNameEN] [varchar] (120) COLLATE Hungarian_CI_AS NULL,
[VATPercent] [decimal] (3, 3) NOT NULL,
[DateFrom] [date] NULL,
[DateTo] [date] NULL
```

```
) ON [PRIMARY]
GO
ALTER TABLE [dbo].[DictVAT] ADD CONSTRAINT [CK_DictVAT_DateTo] CHECK (([DateTo]>[DateFrom]))
GO
ALTER TABLE [dbo].[DictVAT] ADD CONSTRAINT [PK__DictVAT__4A9628CEE03A70BE] PRIMARY KEY
CLUSTERED ([VATID]) ON [PRIMARY]
GO
ALTER TABLE [dbo].[DictVAT] ADD CONSTRAINT [UQ  DictVAT  F2ABE2AFA21EEF0C] UNIQUE
NONCLUSTERED ([VATPercent]) ON [PRIMARY]
GO
```

Used By

[dbo].[AssetStock]
[dbo].[Work]

workrouter

[dbo].[DictWorksheetStatus]

Szótár tábla a javítás során előforduló státuszokhoz. Pl. Folyamatban, alkatrészre vár.

Properties

Property	Value
Collation	Hungarian_CI_AS
Row Count (~)	3
Created	20:00:48 2023. május 5., péntek
Last Modified	20:00:48 2023. május 5., péntek

Columns

Key	Name	Data Type	Max Length (Bytes)	Nullability	Identity
PK	StatusCode	tinyint	1	NOT NULL	1 - 1
	StatusName	varchar(120)	120	NOT NULL	
	StatusNameDE	varchar(120)	120	NOT NULL	
	StatusNameEN	varchar(120)	120	NOT NULL	

Indexes

Key	Name	Key Columns	Unique
PK	PK__DictWork__6A7B44FD01EE324F	StatusCode	True
	UQ__DictWork__05E7698A028212BB	StatusName	True
	UQ__DictWork__977A880CF50CF54C	StatusNameDE	True
	UQ__DictWork__977AF0E414EF718A	StatusNameEN	True

SQL Script

```
CREATE TABLE [dbo].[DictWorksheetStatus]
(
[StatusCode] [tinyint] NOT NULL IDENTITY(1, 1),
[StatusName] [varchar] (120) COLLATE Hungarian_CI_AS NOT NULL,
[StatusNameDE] [varchar] (120) COLLATE Hungarian_CI_AS NOT NULL,
[StatusNameEN] [varchar] (120) COLLATE Hungarian_CI_AS NOT NULL
) ON [PRIMARY]
GO
ALTER TABLE [dbo].[DictWorksheetStatus] ADD CONSTRAINT [PK__DictWork__6A7B44FD01EE324F]
PRIMARY KEY CLUSTERED ([StatusCode]) ON [PRIMARY]
GO
ALTER TABLE [dbo].[DictWorksheetStatus] ADD CONSTRAINT [UQ__DictWork__05E7698A028212BB]
UNIQUE NONCLUSTERED ([StatusName]) ON [PRIMARY]
GO
ALTER TABLE [dbo].[DictWorksheetStatus] ADD CONSTRAINT [UQ__DictWork__977A880CF50CF54C]
UNIQUE NONCLUSTERED ([StatusNameDE]) ON [PRIMARY]
GO
```

```
ALTER TABLE [dbo].[DictWorksheetStatus] ADD CONSTRAINT [UQ__DictWork__977AF0E414EF718A]
UNIQUE NONCLUSTERED ([StatusNameEN]) ON [PRIMARY]
GO
```

Used By

[dbo].[Worksheet]

[dbo].[PostalCode]

Ez a tábla tartalmazza a magyar irányítószámokat, településnevekkel.

A magyar posta hivatalos adatai alapján importáltam CSV fájlból, tárolja a megyéket is. Nagyon fontos a statisztikai adatok szempontjából is.

Properties

Property	Value
Collation	Hungarian_CI_AS
Row Count (~)	3570
Created	20:00:48 2023. május 5., péntek
Last Modified	20:01:20 2023. május 5., péntek

Columns

Key	Name	Data Type	Max Length (Bytes)	Nullability	Identity
PK	PostalCodeID	int	4	NOT NULL	1 - 1
	PostalCode	varchar(10)	10	NULL allowed	
FK	CountyID	int	4	NULL allowed	
	CityName	varchar(50)	50	NULL allowed	

Indexes

Key	Name	Key Columns	Unique
PK	PK__PostalCo__E197FE61F0EE008B	PostalCodeID	True

Foreign Keys

Name	No Check	Columns
FK__PostalCod__Count__236943A5	True	CountyID->[dbo].[DictCounty].[CountyID]

SQL Script

```
CREATE TABLE [dbo].[PostalCode]
(
[PostalCodeID] [int] NOT NULL IDENTITY(1, 1),
[PostalCode] [varchar] (10) COLLATE Hungarian_CI_AS NULL,
[CountyID] [int] NULL,
[CityName] [varchar] (50) COLLATE Hungarian_CI_AS NULL
) ON [PRIMARY]
GO
ALTER TABLE [dbo].[PostalCode] ADD CONSTRAINT [PK__PostalCo__E197FE61F0EE008B] PRIMARY KEY
CLUSTERED ([PostalCodeID]) ON [PRIMARY]
```

```
GO
ALTER TABLE [dbo].[PostalCode] WITH NOCHECK ADD CONSTRAINT [FK__PostalCod__Count__236943A5]
FOREIGN KEY ([CountyID]) REFERENCES [dbo].[DictCounty] ([CountyID])
GO
```

Uses

[dbo].[DictCounty]

Used By

[dbo].[vStatCustomerCity]
[dbo].[vStatCustomerCounty]
[dbo].[CreateRandomCustomer]

[dbo].[Service]

A szervízek adatai tartalmazza. A ServiceFrom, és To mezők alapján tárolható, hogy az adott szerviz még rendelkezésre áll-e.

Properties

Property	Value
Collation	Hungarian_CI_AS
Row Count (~)	3
Created	20:00:48 2023. május 5., péntek
Last Modified	20:00:48 2023. május 5., péntek

Columns

Key	Name	Data Type	Max Length (Bytes)	Nullability	Identity
PK C	ServiceCode	int	4	NOT NULL	1 - 1
	ServiceName	varchar(100)	100	NOT NULL	
FK	AddressID	int	4	NULL allowed	
	PhoneNumber	varchar(20)	20	NULL allowed	
	Email	varchar(90)	90	NULL allowed	
	ServiceFrom	date	3	NULL allowed	
	ServiceTo	date	3	NULL allowed	

Indexes

Key	Name	Key Columns	Unique
PK C	PK__Service__A01D74C8B82C2699	ServiceCode	True
	UQ__Service__A42B5F99D4F10173	ServiceName	True

Check Constraints

Name	Constraint
CK_Service_ToDate	([ServiceTo]>[ServiceFrom])

Foreign Keys

Name	Columns
FK__Service__Address__2645B050	AddressID->[dbo].[Address].[AddressId]

SQL Script

```
CREATE TABLE [dbo].[Service]
```

```
(
[ServiceCode] [int] NOT NULL IDENTITY(1, 1),
[ServiceName] [varchar] (100) COLLATE Hungarian_CI_AS NOT NULL,
[AddressID] [int] NULL,
[PhoneNumber] [varchar] (20) COLLATE Hungarian_CI_AS NULL,
[Email] [varchar] (90) COLLATE Hungarian_CI_AS NULL,
[ServiceFrom] [date] NULL,
[ServiceTo] [date] NULL
) ON [PRIMARY]
GO
ALTER TABLE [dbo].[Service] ADD CONSTRAINT [CK_Service_ToDate] CHECK (([ServiceTo]>[Service-
From]))
GO
ALTER TABLE [dbo].[Service] ADD CONSTRAINT [PK  Service  A01D74C8B82C2699] PRIMARY KEY
CLUSTERED ([ServiceCode]) ON [PRIMARY]
GO
ALTER TABLE [dbo].[Service] ADD CONSTRAINT [UQ__Service__A42B5F99D4F10173] UNIQUE
NONCLUSTERED ([ServiceName]) ON [PRIMARY]
GO
ALTER TABLE [dbo].[Service] ADD CONSTRAINT [FK__Service__Address__2645B050] FOREIGN KEY
([AddressID]) REFERENCES [dbo].[Address] ([AddressId])
GO
```

Uses

[dbo].[Address]

Used By

[dbo].[AssetStock]
[dbo].[Site]
[dbo].[Worker]
[dbo].[Worksheet]
[dbo].[vStatCustomerBuyerCard]
[dbo].[vStatWorksheet]
[dbo].[CreateRandomWorksheet]
[dbo].[CreateWorksheet]
[dbo].[GetWorksheetBasicData]

[dbo].[Site]

A szervízekhez tartozó különböző telephelyek tárolására szolgál.

Properties

Property	Value
Collation	Hungarian_CI_AS
Row Count (~)	2
Created	20:00:48 2023. május 5., péntek
Last Modified	20:00:48 2023. május 5., péntek

Columns

Key	Name	Data Type	Max Length (Bytes)	Nullability
PK C	SiteCode	smallint	2	NOT NULL
FK	ServiceCode	int	4	NULL allowed
	SiteName	varchar(100)	100	NOT NULL
	PhoneNumber	varchar(20)	20	NULL allowed
	Email	varchar(90)	90	NULL allowed
FK	AddressID	int	4	NULL allowed
	SiteFrom	date	3	NULL allowed
	SiteTo	date	3	NULL allowed

Indexes

Key	Name	Key Columns	Unique
PK C	PK__Site__A12A33662EB84E1F	SiteCode	True
	UQ__Site__686162EF703A8BC3	SiteName	True

Check Constraints

Name	Constraint
CK_Site_ToDate	([SiteTo]>[SiteFrom])

Foreign Keys

Name	Columns
FK__Site__AddressID__2739D489	AddressID->[dbo].[Address].[AddressId]
FK__Site__ServiceCod__2A164134	ServiceCode->[dbo].[Service].[ServiceCode]

SQL Script

```
CREATE TABLE [dbo].[Site]
(
[SiteCode] [smallint] NOT NULL,
[ServiceCode] [int] NULL,
[SiteName] [varchar] (100) COLLATE Hungarian_CI_AS NOT NULL,
[PhoneNumber] [varchar] (20) COLLATE Hungarian_CI_AS NULL,
[Email] [varchar] (90) COLLATE Hungarian_CI_AS NULL,
[AddressID] [int] NULL,
[SiteFrom] [date] NULL,
[SiteTo] [date] NULL
) ON [PRIMARY]
GO
ALTER TABLE [dbo].[Site] ADD CONSTRAINT [CK_Site_ToDate] CHECK (([SiteTo]>[SiteFrom]))
GO
ALTER TABLE [dbo].[Site] ADD CONSTRAINT [PK__Site__A12A33662EB84E1F] PRIMARY KEY CLUSTERED
([SiteCode]) ON [PRIMARY]
GO
ALTER TABLE [dbo].[Site] ADD CONSTRAINT [UQ__Site__686162EF703A8BC3] UNIQUE NONCLUSTERED
([SiteName]) ON [PRIMARY]
GO
ALTER TABLE [dbo].[Site] ADD CONSTRAINT [FK__Site__AddressID__2739D489] FOREIGN KEY
([AddressID]) REFERENCES [dbo].[Address] ([AddressId])
GO
ALTER TABLE [dbo].[Site] ADD CONSTRAINT [FK__Site__ServiceCod__2A164134] FOREIGN KEY
([ServiceCode]) REFERENCES [dbo].[Service] ([ServiceCode])
GO
```

Uses

[dbo].[Address]
[dbo].[Service]

Used By

[dbo].[AssetStock]
[dbo].[Worksheet]

workrouter

[dbo].[UsedComponent]

A munkalapokhoz kapcsolódó felhasznált termékek rögzítését oldja meg.
Tárolva van, hogy melyik munkalaphoz, melyik dolgozó milyen alkatrészt, és hány darabot használt fel.

Nyilván egy munkalaphoz több dolgozó több alkatrészt is felhasználhat.

Properties

Property	Value
Row Count (~)	1
Created	20:00:48 2023. május 5., péntek
Last Modified	20:00:48 2023. május 5., péntek

Columns

Key	Name	Data Type	Max Length (Bytes)	Nullability
PK FK C	WorksheetID	int	4	NOT NULL
FK	WorkerID	smallint	2	NOT NULL
FK	AssetID	int	4	NOT NULL
	Quantity	tinyint	1	NOT NULL

Indexes

Key	Name	Key Columns	Unique
PK C	PK__UsedComp__58C2923356530A6F	WorksheetID	True

Foreign Keys

Name	Columns
FK__UsedCompo__Asset__29221CFB	AssetID->[dbo].[AssetStock].[AssetID]
FK__UsedCompo__Worke__395884C4	WorkerID->[dbo].[Worker].[WorkerID]
FK__UsedCompo__Works__1DB06A4F	WorksheetID->[dbo].[Worksheet].[WorksheetID]

SQL Script

```
CREATE TABLE [dbo].[UsedComponent]
(
[WorksheetID] [int] NOT NULL,
[WorkerID] [smallint] NOT NULL,
[AssetID] [int] NOT NULL,
[Quantity] [tinyint] NOT NULL
) ON [PRIMARY]
GO
ALTER TABLE [dbo].[UsedComponent] ADD CONSTRAINT [PK__UsedComp__58C2923356530A6F] PRIMARY
KEY CLUSTERED ([WorksheetID]) ON [PRIMARY]
```

```
GO
ALTER TABLE [dbo].[UsedComponent] ADD CONSTRAINT [FK__UsedCompo__Asset__29221CFB] FOREIGN
KEY ([AssetID]) REFERENCES [dbo].[AssetStock] ([AssetID])
GO
ALTER TABLE [dbo].[UsedComponent] ADD CONSTRAINT [FK__UsedCompo__Worke__395884C4] FOREIGN
KEY ([WorkerID]) REFERENCES [dbo].[Worker] ([WorkerID])
GO
ALTER TABLE [dbo].[UsedComponent] ADD CONSTRAINT [FK__UsedCompo__Works__1DB06A4F] FOREIGN
KEY ([WorksheetID]) REFERENCES [dbo].[Worksheet] ([WorksheetID])
GO
```

Uses

[dbo].[AssetStock]
[dbo].[Worker]
[dbo].[Worksheet]

Used By

[dbo].[GetUsedComponentsByWorksheetNumber]

workrouter

[dbo].[Work]

A munkalapokhoz kapcsolható munkák leírása. Itt kerül tárolásra országos szinten a munka megnevezése, áfakulcsa, ára, és hogy egységáras, vagy pedig óradíjas szoláltatásról van-e szó.

Értelemszerűen ez országonként eltérhet mindkét esetben.

Properties

Property	Value
Collation	Hungarian_CI_AS
Row Count (~)	9
Created	20:00:48 2023. május 5., péntek
Last Modified	20:00:48 2023. május 5., péntek

Columns

Key	Name	Data Type	Max Length (Bytes)	Nullability	Identity	Default
PK C	WorkID	smallint	2	NOT NULL	1 - 1	
	WorkCode	varchar(10)	10	NULL allowed		
	WorkName	varchar(120)	120	NOT NULL		
	WorkNameDE	varchar(120)	120	NOT NULL		
	WorkNameEN	varchar(120)	120	NOT NULL		
FK	WorkSubCategoryID	tinyint	1	NULL allowed		
	iSHourlyWork	bit	1	NULL allowed		((0))
	HourlyWorkPrice	money	8	NULL allowed		
	HourlyWorkPriceDE	money	8	NULL allowed		
	HourlyWorkPriceEN	money	8	NULL allowed		
FK	VatID	tinyint	1	NOT NULL		
FK	VatIdDE	tinyint	1	NOT NULL		
FK	VatIdEN	tinyint	1	NOT NULL		
	Price	money	8	NULL allowed		
	PriceDE	money	8	NULL allowed		
	PriceEN	money	8	NULL allowed		

Indexes

Key	Name	Key Columns	Unique
PK C	PK__Work__2DE6D215CEAD825B	WorkID	True
	UQ__Work__302D3E24852E1951	WorkNameDE	True
	UQ__Work__302D454B2ED3B991	WorkNameEN	True
	UQ__Work__58DF351D82A9ADAB	WorkName	True

Foreign Keys

Name	Columns
FK__Work__VatID__3B40CD36	VatID->[dbo].[DictVAT].[VATID]
FK__Work__VatIdDE__3C34F16F	VatIdDE->[dbo].[DictVAT].[VATID]
FK__Work__VatIdEN__3D2915A8	VatIdEN->[dbo].[DictVAT].[VATID]
FK__Work__WorkSubCat__32AB8735	WorkSubCategoryID->[dbo].[WorkSubcategory].[WorkSubcategoryID]

Permissions

Type	Action	Owning Principal
Grant	DELETE	WorkAdmin
Grant	INSERT	WorkAdmin
Grant	SELECT	WorkAdmin
Grant	UPDATE	WorkAdmin

SQL Script

```
CREATE TABLE [dbo].[Work]
(
[WorkID] [smallint] NOT NULL IDENTITY(1, 1),
[WorkCode] [varchar] (10) COLLATE Hungarian_CI_AS NULL,
[WorkName] [varchar] (120) COLLATE Hungarian_CI_AS NOT NULL,
[WorkNameDE] [varchar] (120) COLLATE Hungarian_CI_AS NOT NULL,
[WorkNameEN] [varchar] (120) COLLATE Hungarian_CI_AS NOT NULL,
[WorkSubCategoryID] [tinyint] NULL,
[iSHourlyWork] [bit] NULL CONSTRAINT [DF__Work__iSHourlyWo__0D7A0286] DEFAULT ((0)),
[HourlyWorkPrice] [money] NULL,
[HourlyWorkPriceDE] [money] NULL,
[HourlyWorkPriceEN] [money] NULL,
[VatID] [tinyint] NOT NULL,
[VatIdDE] [tinyint] NOT NULL,
[VatIdEN] [tinyint] NOT NULL,
[Price] [money] NULL,
[PriceDE] [money] NULL,
[PriceEN] [money] NULL
) ON [PRIMARY]
GO
ALTER TABLE [dbo].[Work] ADD CONSTRAINT [PK__Work__2DE6D215CEAD825B] PRIMARY KEY CLUSTERED
([WorkID]) ON [PRIMARY]
GO
ALTER TABLE [dbo].[Work] ADD CONSTRAINT [UQ  Work  58DF351D82A9ADAB] UNIQUE NONCLUSTERED
([WorkName]) ON [PRIMARY]
GO
ALTER TABLE [dbo].[Work] ADD CONSTRAINT [UQ__Work__302D3E24852E1951] UNIQUE NONCLUSTERED
([WorkNameDE]) ON [PRIMARY]
GO
ALTER TABLE [dbo].[Work] ADD CONSTRAINT [UQ__Work__302D454B2ED3B991] UNIQUE NONCLUSTERED
([WorkNameEN]) ON [PRIMARY]
GO
ALTER TABLE [dbo].[Work] ADD CONSTRAINT [FK__Work__VatID__3B40CD36] FOREIGN KEY ([VatID])
REFERENCES [dbo].[DictVAT] ([VATID])
GO
```

```
ALTER TABLE [dbo].[Work] ADD CONSTRAINT [FK__Work__VatIdDE__3C34F16F] FOREIGN KEY ([VatId-
DE]) REFERENCES [dbo].[DictVAT] ([VATID])
GO
ALTER TABLE [dbo].[Work] ADD CONSTRAINT [FK__Work__VatIdEN__3D2915A8] FOREIGN KEY ([VatId-
EN]) REFERENCES [dbo].[DictVAT] ([VATID])
GO
ALTER TABLE [dbo].[Work] ADD CONSTRAINT [FK__Work__WorkSubCat__32AB8735] FOREIGN KEY ([Work-
SubCategoryID]) REFERENCES [dbo].[WorkSubcategory] ([WorkSubcategoryID])
GO
GRANT DELETE ON  [dbo].[Work] TO [WorkAdmin]
GO
GRANT INSERT ON  [dbo].[Work] TO [WorkAdmin]
GO
GRANT SELECT ON  [dbo].[Work] TO [WorkAdmin]
GO
GRANT UPDATE ON  [dbo].[Work] TO [WorkAdmin]
GO
```

Uses

[dbo].[DictVAT]
[dbo].[WorkSubcategory]

Used By

[dbo].[WorksheetDetail]
[app].[GetWorksByWorksheetNumber]
[app].[GetWorksByWorksheetNumberDE]
[app].[GetWorksByWorksheetNumberEN]
[dbo].[CreateWork]
[dbo].[GetWorksByWorksheetNumber]

[dbo].[WorkCategory]

A korábban már bemutatott munkák kategóriákba sorolására szolgál.

Properties

Property	Value
Collation	Hungarian_CI_AS
Row Count (~)	2
Created	20:00:48 2023. május 5., péntek
Last Modified	20:00:48 2023. május 5., péntek

Columns

Key	Name	Data Type	Max Length (Bytes)	Nullability	Identity
PK C	WorkCategoryID	tinyint	1	NOT NULL	1 - 1
	CategoryName	varchar(120)	120	NULL allowed	
	CategoryNameDE	varchar(120)	120	NULL allowed	
	CategoryNameEN	varchar(120)	120	NULL allowed	
	ModifiedDate	datetime	8	NULL allowed	

Indexes

Key	Name	Key Columns	Unique
PK C	PK__WorkCate__273A10871F49060C	WorkCategoryID	True

Permissions

Type	Action	Owning Principal
Grant	DELETE	WorkAdmin
Grant	INSERT	WorkAdmin
Grant	SELECT	WorkAdmin
Grant	UPDATE	WorkAdmin

SQL Script

```
CREATE TABLE [dbo].[WorkCategory]
(
[WorkCategoryID] [tinyint] NOT NULL IDENTITY(1, 1),
[CategoryName] [varchar] (120) COLLATE Hungarian_CI_AS NULL,
[CategoryNameDE] [varchar] (120) COLLATE Hungarian_CI_AS NULL,
[CategoryNameEN] [varchar] (120) COLLATE Hungarian_CI_AS NULL,
[ModifiedDate] [datetime] NULL
) ON [PRIMARY]
GO
```

```
ALTER TABLE [dbo].[WorkCategory] ADD CONSTRAINT [PK__WorkCate__273A10871F49060C] PRIMARY KEY
CLUSTERED ([WorkCategoryID]) ON [PRIMARY]
GO
GRANT DELETE ON  [dbo].[WorkCategory] TO [WorkAdmin]
GO
GRANT INSERT ON  [dbo].[WorkCategory] TO [WorkAdmin]
GO
GRANT SELECT ON  [dbo].[WorkCategory] TO [WorkAdmin]
GO
GRANT UPDATE ON  [dbo].[WorkCategory] TO [WorkAdmin]
GO
```

Used By

[dbo].[WorkSubcategory]

workrouter

[dbo].[Worker]

A dolgozók kivezetése egy külön táblába a Customer táblából. A munkalapokhoz való kapcsolat és a jogosultsági rendszer indokolta.

Itt megkülönböztethető belsős és külsős dolgozó is, ill. a dolgozók szervízekhez vannak rendelve.

Properties

Property	Value
Row Count (~)	2
Created	20:00:48 2023. május 5., péntek
Last Modified	20:00:48 2023. május 5., péntek

Columns

Key	Name	Data Type	Max Length (Bytes)	Nullability	Identity	Default
PK C	WorkerID	smallint	2	NOT NULL	1 - 1	
FK	CustomerID	int	4	NOT NULL		
FK	ServiceCode	int	4	NOT NULL		
	isInternalWorker	bit	1	NULL allowed		((1))
	isExternalWorker	bit	1	NULL allowed		((0))
	IsActive	bit	1	NOT NULL		((1))

Indexes

Key	Name	Key Columns	Unique
PK C	PK__Worker__077C88069A68ABD4	WorkerID	True

Foreign Keys

Name	Columns
FK__Worker__Customer__1AD3FDA4	CustomerID->[dbo].[Customer].[CustomerID]
FK__Worker__ServiceC__1BC821DD	ServiceCode->[dbo].[Service].[ServiceCode]

Permissions

Type	Action	Owning Principal
Grant	DELETE	WorkRouter
Grant	INSERT	WorkRouter
Grant	SELECT	WorkRouter
Grant	UPDATE	WorkRouter

SQL Script

```
CREATE TABLE [dbo].[Worker]
(
[WorkerID] [smallint] NOT NULL IDENTITY(1, 1),
[CustomerID] [int] NOT NULL,
[ServiceCode] [int] NOT NULL,
[isInternalWorker] [bit] NULL CONSTRAINT [DF__Worker__isIntern__5EBF139D] DEFAULT ((1)),
[isExternalWorker] [bit] NULL CONSTRAINT [DF__Worker__isExtern__5FB337D6] DEFAULT ((0)),
[IsActive] [bit] NOT NULL CONSTRAINT [DF__Worker__IsActive__60A75C0F] DEFAULT ((1))
) ON [PRIMARY]
GO
ALTER TABLE [dbo].[Worker] ADD CONSTRAINT [PK__Worker__077C88069A68ABD4] PRIMARY KEY
CLUSTERED ([WorkerID]) ON [PRIMARY]
GO
ALTER TABLE [dbo].[Worker] ADD CONSTRAINT [FK__Worker__Customer__1AD3FDA4] FOREIGN KEY
([CustomerID]) REFERENCES [dbo].[Customer] ([CustomerID])
GO
ALTER TABLE [dbo].[Worker] ADD CONSTRAINT [FK__Worker__ServiceC__1BC821DD] FOREIGN KEY
([ServiceCode]) REFERENCES [dbo].[Service] ([ServiceCode])
GO
GRANT DELETE ON  [dbo].[Worker] TO [WorkRouter]
GO
GRANT INSERT ON  [dbo].[Worker] TO [WorkRouter]
GO
GRANT SELECT ON  [dbo].[Worker] TO [WorkRouter]
GO
GRANT UPDATE ON  [dbo].[Worker] TO [WorkRouter]
GO
```

Uses

[dbo].[Customer]
[dbo].[Service]

Used By

[dbo].[UsedComponent]
[dbo].[WorkerConnection]
[dbo].[WorkerRightConnection]
[dbo].[Worksheet]
[dbo].[WorksheetDetail]
[app].[GetWorksByWorksheetNumber]
[app].[GetWorksByWorksheetNumberDE]
[app].[GetWorksByWorksheetNumberEN]
[dbo].[GetUsedComponentsByWorksheetNumber]
[dbo].[GetWorksByWorksheetNumber]
[dbo].[GetWorksheetBasicData]

workrouter

[dbo].[WorkerConnection]

Ez a tábla a munkák kiosztásához lett beépítve. Egy adott magasabb beosztásban lévő személy kioszthatja a munkát egy, vagy akár több dolgozónak is.

Properties

Property	Value
Row Count (~)	2
Created	20:00:48 2023. május 5., péntek
Last Modified	20:00:48 2023. május 5., péntek

Columns

Key	Name	Data Type	Max Length (Bytes)	Nullability	Identity
PK C	WorkerConnectionID	int	4	NOT NULL	1 - 1
FK	PrincipalWorkerID	smallint	2	NOT NULL	
FK	WorkerID	smallint	2	NOT NULL	
FK	WorksheetID	int	4	NOT NULL	

Indexes

Key	Name	Key Columns	Unique
PK C	PK__WorkerCo__2B61AC383D5BEC07	WorkerConnectionID	True

Foreign Keys

Name	Columns
FK__WorkerCon__Princ__2EDAF651	PrincipalWorkerID->[dbo].[Worker].[WorkerID]
FK__WorkerCon__Worke__1EA48E88	WorkerID->[dbo].[Worker].[WorkerID]
FK__WorkerCon__Works__22751F6C	WorksheetID->[dbo].[Worksheet].[WorksheetID]

Permissions

Type	Action	Owning Principal
Grant	DELETE	WorkRouter
Grant	INSERT	WorkRouter
Grant	SELECT	WorkRouter
Grant	UPDATE	WorkRouter

SQL Script

```
CREATE TABLE [dbo].[WorkerConnection]
```

```
(
[WorkerConnectionID] [int] NOT NULL IDENTITY(1, 1),
[PrincipalWorkerID] [smallint] NOT NULL,
[WorkerID] [smallint] NOT NULL,
[WorksheetID] [int] NOT NULL
) ON [PRIMARY]
GO
ALTER TABLE [dbo].[WorkerConnection] ADD CONSTRAINT [PK  WorkerCo  2B61AC383D5BEC07] PRIMARY KEY CLUSTERED ([WorkerConnectionID]) ON [PRIMARY]
GO
ALTER TABLE [dbo].[WorkerConnection] ADD CONSTRAINT [FK__WorkerCon__Princ__2EDAF651] FOREIGN KEY ([PrincipalWorkerID]) REFERENCES [dbo].[Worker] ([WorkerID])
GO
ALTER TABLE [dbo].[WorkerConnection] ADD CONSTRAINT [FK  WorkerCon  Worke  1EA48E88] FOREIGN KEY ([WorkerID]) REFERENCES [dbo].[Worker] ([WorkerID])
GO
ALTER TABLE [dbo].[WorkerConnection] ADD CONSTRAINT [FK__WorkerCon__Works__22751F6C] FOREIGN KEY ([WorksheetID]) REFERENCES [dbo].[Worksheet] ([WorksheetID])
GO
GRANT DELETE ON  [dbo].[WorkerConnection] TO [WorkRouter]
GO
GRANT INSERT ON  [dbo].[WorkerConnection] TO [WorkRouter]
GO
GRANT SELECT ON  [dbo].[WorkerConnection] TO [WorkRouter]
GO
GRANT UPDATE ON  [dbo].[WorkerConnection] TO [WorkRouter]
GO
```

Uses

[dbo].[Worker]
[dbo].[Worksheet]

workrouter

[dbo].[WorkerRight]

Ez a tábla rögzíti, hogy melyik dolgozónak milyen jogosultságai vannak az adott szervízben, vagy telephelyen.

Properties

Property	Value
Row Count (~)	2
Created	20:00:48 2023. május 5., péntek
Last Modified	20:00:48 2023. május 5., péntek

Columns

Key	Name	Data Type	Max Length (Bytes)	Nullability	Identity	Default
PK C	RightID	smallint	2	NOT NULL	1 - 1	
	ServiceCode	int	4	NULL allowed		
	SiteCode	smallint	2	NULL allowed		
	ISGlobalAdmin	bit	1	NULL allowed		((0))
	IsAdmin	bit	1	NULL allowed		((0))
	IsReader	bit	1	NULL allowed		((0))
	IsWriter	bit	1	NULL allowed		((0))

Indexes

Key	Name	Key Columns	Unique
PK C	PK__WorkerRi__465E8876ABEC1004	RightID	True

Permissions

Type	Action	Owning Principal
Grant	DELETE	WorkRouter
Grant	INSERT	WorkRouter
Grant	SELECT	WorkRouter
Grant	UPDATE	WorkRouter

SQL Script

```
CREATE TABLE [dbo].[WorkerRight]
(
[RightID] [smallint] NOT NULL IDENTITY(1, 1),
[ServiceCode] [int] NULL,
[SiteCode] [smallint] NULL,
[ISGlobalAdmin] [bit] NULL CONSTRAINT [DF__WorkerRig__ISGlo__656C112C] DEFAULT ((0)),
[IsAdmin] [bit] NULL CONSTRAINT [DF__WorkerRig__IsAdm__66603565] DEFAULT ((0)),
[IsReader] [bit] NULL CONSTRAINT [DF__WorkerRig__IsRea__6754599E] DEFAULT ((0)),
```

```
[IsWriter] [bit] NULL CONSTRAINT [DF__WorkerRig__IsWri__68487DD7] DEFAULT ((0))
) ON [PRIMARY]
GO
ALTER TABLE [dbo].[WorkerRight] ADD CONSTRAINT [PK__WorkerRi__465E8876ABEC1004] PRIMARY KEY
CLUSTERED ([RightID]) ON [PRIMARY]
GO
GRANT DELETE ON  [dbo].[WorkerRight] TO [WorkRouter]
GO
GRANT INSERT ON  [dbo].[WorkerRight] TO [WorkRouter]
GO
GRANT SELECT ON  [dbo].[WorkerRight] TO [WorkRouter]
GO
GRANT UPDATE ON  [dbo].[WorkerRight] TO [WorkRouter]
GO
```

Used By

[dbo].[WorkerRightConnection]

[dbo].[WorkerRightConnection]

A korábban már bemutatott dolgozók tábla jogosultságához kapcsolódik.

Ez egy kapcsoló tábla a dolgozót köti össze a WorkerRight táblával, hiszen egy dolgozónak lehet akár több különböző szervízben is eltérő jogosultsága is.

Properties

Property	Value
Row Count (~)	2
Created	20:00:48 2023. május 5., péntek
Last Modified	20:00:48 2023. május 5., péntek

Columns

Key	Name	Data Type	Max Length (Bytes)	Nullability	Identity
PK	WorkerRightConnectionID	int	4	NOT NULL	1 - 1
FK	WorkerID	smallint	2	NOT NULL	
FK	RightID	smallint	2	NOT NULL	

Indexes

Key	Name	Key Columns	Unique
PK	PK__WorkerRi__D1C45C16F8120288	WorkerRightConnectionID	True

Foreign Keys

Name	Columns
FK__WorkerRig__Worke__2BFE89A6	WorkerID->[dbo].[Worker].[WorkerID]
FK__WorkerRig__Right__2B0A656D	RightID->[dbo].[WorkerRight].[RightID]

Permissions

Type	Action	Owning Principal
Grant	DELETE	WorkRouter
Grant	INSERT	WorkRouter
Grant	SELECT	WorkRouter
Grant	UPDATE	WorkRouter

SQL Script

```
CREATE TABLE [dbo].[WorkerRightConnection]
(
```

```
[WorkerRightConnectionID] [int] NOT NULL IDENTITY(1, 1),
[WorkerID] [smallint] NOT NULL,
[RightID] [smallint] NOT NULL
) ON [PRIMARY]
GO
ALTER TABLE [dbo].[WorkerRightConnection] ADD CONSTRAINT [PK__WorkerRi__D1C45C16F8120288]
PRIMARY KEY CLUSTERED ([WorkerRightConnectionID]) ON [PRIMARY]
GO
ALTER TABLE [dbo].[WorkerRightConnection] ADD CONSTRAINT [FK__WorkerRig__Worke__2BFE89A6]
FOREIGN KEY ([WorkerID]) REFERENCES [dbo].[Worker] ([WorkerID])
GO
ALTER TABLE [dbo].[WorkerRightConnection] ADD CONSTRAINT [FK__WorkerRig__Right__2B0A656D]
FOREIGN KEY ([RightID]) REFERENCES [dbo].[WorkerRight] ([RightID])
GO
GRANT DELETE ON  [dbo].[WorkerRightConnection] TO [WorkRouter]
GO
GRANT INSERT ON  [dbo].[WorkerRightConnection] TO [WorkRouter]
GO
GRANT SELECT ON  [dbo].[WorkerRightConnection] TO [WorkRouter]
GO
GRANT UPDATE ON  [dbo].[WorkerRightConnection] TO [WorkRouter]
GO
```

Uses

[dbo].[Worker]
[dbo].[WorkerRight]

[dbo].[Worksheet]

Ez a központi tábla tárolja a munkalapokat. Az optimalizálás miatt a munkalap int típusú lett, viszont tárolásra kerül egy munkalapszám is, az adott ország alapján.

PL. WS-HU001111, WS-AT002222

Melyik ügyfél, melyik szervízben, milyen eszközt adott le javításra, mi a sorozatszáma, mikor vettük át, ki vette át. Külső munka-e, ha igen, akkor annak a leírása. Számlázva van-e. Ill. Ehhez kapcsolódik a WorksheetDetail is, ahol a részletek is tárolva vannak. Melyik dolgozó mikor mit csinált.

Properties

Property	Value
Collation	Hungarian_CI_AS
Row Count (~)	104822
Created	20:00:48 2023. május 5., péntek
Last Modified	20:00:52 2023. május 5., péntek

Columns

Key	Name	Data Type	Max Length (Bytes)	Nullability	Identity	Default
PK C	WorksheetID	int	4	NOT NULL	1 - 1	
FK	WorksheetRecorderID	smallint	2	NULL allowed		
FK	CustomerID	int	4	NULL allowed		
FK	SiteCode	smallint	2	NULL allowed		
	WorksheetNumber	varchar(20)	20	NULL allowed		
	IsExternal	bit	1	NULL allowed		((0))
	ExternalJobDescription	varchar(120)	120	NULL allowed		
	TimeOfIssue	datetime	8	NOT NULL		(sysdatetime())
	DeviceName	varchar(120)	120	NULL allowed		
	DeviceSerialNummber	varchar(100)	100	NULL allowed		
	JobDescription	varchar(120)	120	NULL allowed		
FK	ServiceCode	int	4	NULL allowed		
	IsBilled	bit	1	NULL allowed		((0))
	IsLocked	bit	1	NULL allowed		((0))
FK	StatusCode	tinyint	1	NULL allowed		((0))
	TimeOfCompletion	datetime	8	NULL allowed		(NULL)

Indexes

Key	Name	Key Columns	Unique
PK C	PK__Workshee__58C29233B85BB2CA	WorksheetID	True
	UQ__Workshee__9D998C8F1E4B6BA2	WorksheetNumber	True

Triggers

Name	ANSI Nulls On	Quoted Identifier On	On
BillBaseData	True	True	After Insert

Check Constraints

Name	On Column	Constraint
CK_Worksheet_IssueDate	TimeOfCompletion	([TimeOfCompletion]>=sysdatetime())

Foreign Keys

Name	Columns
FK__Worksheet__Custo__1F98B2C1	CustomerID->[dbo].[Customer].[CustomerID]
FK__Worksheet__Statu__3493CFA7	StatusCode->[dbo].[DictWorksheetStatus].[StatusCode]
FK__Worksheet__Servi__19DFD96B	ServiceCode->[dbo].[Service].[ServiceCode]
FK__Worksheet__SiteC__3587F3E0	SiteCode->[dbo].[Site].[SiteCode]
FK__Worksheet__Works__30C33EC3	WorksheetRecorderID->[dbo].[Worker].[WorkerID]

SQL Script

```
CREATE TABLE [dbo].[Worksheet]
(
[WorksheetID] [int] NOT NULL IDENTITY(1, 1),
[WorksheetRecorderID] [smallint] NULL,
[CustomerID] [int] NULL,
[SiteCode] [smallint] NULL,
[WorksheetNumber] [varchar] (20) COLLATE Hungarian_CI_AS NULL,
[IsExternal] [bit] NULL CONSTRAINT [DF__Worksheet__IsExt__5441852A] DEFAULT ((0)),
[ExternalJobDescription] [varchar] (120) COLLATE Hungarian_CI_AS NULL,
[TimeOfIssue] [datetime] NOT NULL CONSTRAINT [DF__Worksheet__TimeO__5535A963] DEFAULT
(sysdatetime()),
[DeviceName] [varchar] (120) COLLATE Hungarian_CI_AS NULL,
[DeviceSerialNummber] [varchar] (100) COLLATE Hungarian_CI_AS NULL,
[JobDescription] [varchar] (120) COLLATE Hungarian_CI_AS NULL,
[ServiceCode] [int] NULL,
[IsBilled] [bit] NULL CONSTRAINT [DF__Worksheet__IsBil__5629CD9C] DEFAULT ((0)),
[IsLocked] [bit] NULL CONSTRAINT [DF__Worksheet__IsLoc__571DF1D5] DEFAULT ((0)),
[StatusCode] [tinyint] NULL CONSTRAINT [DF__Worksheet__Statu__5812160E] DEFAULT ((0)),
[TimeOfCompletion] [datetime] NULL CONSTRAINT [DF  Worksheet  TimeO  59063A47] DEFAULT
(NULL)
) ON [PRIMARY]
GO
CREATE   TRIGGER [dbo].[BillBaseData]
ON [dbo].[Worksheet]
AFTER INSERT
AS
DECLARE @LastWorksheetID int
SET @LastWorksheetID = (SELECT MAX(WorksheetId) FROM Worksheet)
INSERT INTO Bill(WorksheetID,SentStatus) VALUES(@LastWorksheetID,0)
```

```
GO
ALTER TABLE [dbo].[Worksheet] ADD CONSTRAINT [CK_Worksheet_IssueDate] CHECK (([TimeOf-
Completion]>=sysdatetime()))
GO
ALTER TABLE [dbo].[Worksheet] ADD CONSTRAINT [PK__Workshee__58C29233B85BB2CA] PRIMARY KEY
CLUSTERED ([WorksheetID]) ON [PRIMARY]
GO
ALTER TABLE [dbo].[Worksheet] ADD CONSTRAINT [UQ__Workshee__9D998C8F1E4B6BA2] UNIQUE
NONCLUSTERED ([WorksheetNumber]) ON [PRIMARY]
GO
ALTER TABLE [dbo].[Worksheet] ADD CONSTRAINT [FK__Worksheet__Custo__1F98B2C1] FOREIGN KEY
([CustomerID]) REFERENCES [dbo].[Customer] ([CustomerID])
GO
ALTER TABLE [dbo].[Worksheet] ADD CONSTRAINT [FK__Worksheet__Statu__3493CFA7] FOREIGN KEY
([StatusCode]) REFERENCES [dbo].[DictWorksheetStatus] ([StatusCode])
GO
ALTER TABLE [dbo].[Worksheet] ADD CONSTRAINT [FK__Worksheet__Servi__19DFD96B] FOREIGN KEY
([ServiceCode]) REFERENCES [dbo].[Service] ([ServiceCode])
GO
ALTER TABLE [dbo].[Worksheet] ADD CONSTRAINT [FK__Worksheet__SiteC__3587F3E0] FOREIGN KEY
([SiteCode]) REFERENCES [dbo].[Site] ([SiteCode])
GO
ALTER TABLE [dbo].[Worksheet] ADD CONSTRAINT [FK__Worksheet__Works__30C33EC3] FOREIGN KEY
([WorksheetRecorderID]) REFERENCES [dbo].[Worker] ([WorkerID])
GO
```

Uses

[dbo].[Customer]
[dbo].[DictWorksheetStatus]
[dbo].[Service]
[dbo].[Site]
[dbo].[Worker]

Used By

[dbo].[Bill]
[dbo].[UsedComponent]
[dbo].[WorkerConnection]
[dbo].[WorksheetDetail]
[dbo].[vStatCustomerBuyerCard]
[dbo].[vStatWorksheet]
[app].[GetWorksByWorksheetNumber]
[app].[GetWorksByWorksheetNumberDE]
[app].[GetWorksByWorksheetNumberEN]
[dbo].[CreateRandomWorksheet]
[dbo].[CreateWorksheet]
[dbo].[GetUsedComponentsByWorksheetNumber]
[dbo].[GetWorksByWorksheetNumber]
[dbo].[GetWorksheetBasicData]
[dbo].[GenerateWorksheetNumber]

workrouter

[dbo].[WorksheetDetail]

A korábban bemutatott munkalap táblához kapcsoló munkavégzéseket tárolja. Nyilván egy munkalaphoz tartozhat több dolgozó, és több munka is.

Properties

Property	Value
Collation	Hungarian_CI_AS
Row Count (~)	157501
Created	20:00:48 2023. május 5., péntek
Last Modified	21:27:26 2023. május 5., péntek

Columns

Key	Name	Data Type	Max Length (Bytes)	Nullability	Identity
PK C	WorksheetDetailID	int	4	NOT NULL	1 - 1
FK	WorksheetID	int	4	NOT NULL	
FK	WorkerID	smallint	2	NOT NULL	
FK	WorkID	smallint	2	NULL allowed	
	Quantity	tinyint	1	NOT NULL	
	WorkerDescription	varchar(120)	120	NULL allowed	
	CompletionTime	datetime	8	NULL allowed	

Indexes

Key	Name	Key Columns	Included Columns	Unique
PK C	PK__-Workshee__178694B2AF0561B1	WorksheetDetail-ID		True
	IX_WorksheetID	WorksheetID	WorkerID, WorkID, Quantity, Worker-Description	

Foreign Keys

Name	Columns
FK__Worksheet__WorkI__367C1819	WorkID->[dbo].[Work].[WorkID]
FK__Worksheet__Worke__339FAB6E	WorkerID->[dbo].[Worker].[WorkerID]
FK__Worksheet__Works__2CF2ADDF	WorksheetID->[dbo].[Worksheet].[WorksheetID]

SQL Script

```
CREATE TABLE [dbo].[WorksheetDetail]
(
[WorksheetDetailID] [int] NOT NULL IDENTITY(1, 1),
```

```
[WorksheetID] [int] NOT NULL,
[WorkerID] [smallint] NOT NULL,
[WorkID] [smallint] NULL,
[Quantity] [tinyint] NOT NULL,
[WorkerDescription] [varchar] (120) COLLATE Hungarian_CI_AS NULL,
[CompletionTime] [datetime] NULL
) ON [PRIMARY]
GO
ALTER TABLE [dbo].[WorksheetDetail] ADD CONSTRAINT [PK__Workshee__178694B2AF0561B1] PRIMARY
KEY CLUSTERED ([WorksheetDetailID]) ON [PRIMARY]
GO
CREATE NONCLUSTERED INDEX [IX_WorksheetID] ON [dbo].[WorksheetDetail] ([WorksheetID])
INCLUDE ([WorkerID], [WorkID], [Quantity], [WorkerDescription]) ON [PRIMARY]
GO
ALTER TABLE [dbo].[WorksheetDetail] ADD CONSTRAINT [FK__Worksheet__WorkI__367C1819] FOREIGN
KEY ([WorkID]) REFERENCES [dbo].[Work] ([WorkID])
GO
ALTER TABLE [dbo].[WorksheetDetail] ADD CONSTRAINT [FK__Worksheet__Worke__339FAB6E] FOREIGN
KEY ([WorkerID]) REFERENCES [dbo].[Worker] ([WorkerID])
GO
ALTER TABLE [dbo].[WorksheetDetail] ADD CONSTRAINT [FK__Worksheet__Works__2CF2ADDF] FOREIGN
KEY ([WorksheetID]) REFERENCES [dbo].[Worksheet] ([WorksheetID])
GO
```

Uses

[dbo].[Work]
[dbo].[Worker]
[dbo].[Worksheet]

Used By

[app].[GetWorksByWorksheetNumber]
[app].[GetWorksByWorksheetNumberDE]
[app].[GetWorksByWorksheetNumberEN]
[dbo].[AddRandomWorkToWorksheet]
[dbo].[CreateWorkToWorksheet]
[dbo].[GetWorksByWorksheetNumber]

[dbo].[WorkSubcategory]

Az adott munka kategorizálható alkategóriákra is. Országos szinten eltérő megnevezés is megadható.

Properties

Property	Value
Collation	Hungarian_CI_AS
Row Count (~)	4
Created	20:00:48 2023. május 5., péntek
Last Modified	20:00:48 2023. május 5., péntek

Columns

Key	Name	Data Type	Max Length (Bytes)	Nullability	Identity
PK C	WorkSubcategoryID	tinyint	1	NOT NULL	1 - 1
FK	WorkCategoryID	tinyint	1	NULL allowed	
	SubcategoryName	varchar(120)	120	NULL allowed	
	SubcategoryNameDE	varchar(120)	120	NULL allowed	
	SubcategoryNameEN	varchar(120)	120	NULL allowed	
	ModifiedDate	datetime	8	NULL allowed	

Indexes

Key	Name	Key Columns	Unique
PK C	PK__WorkSubc__CEBC94D7A49D9307	WorkSubcategoryID	True

Foreign Keys

Name	Columns
FK__WorkSubca__WorkC__31B762FC	WorkCategoryID->[dbo].[WorkCategory].[WorkCategoryID]

Permissions

Type	Action	Owning Principal
Grant	DELETE	WorkAdmin
Grant	INSERT	WorkAdmin
Grant	SELECT	WorkAdmin
Grant	UPDATE	WorkAdmin

SQL Script

```
CREATE TABLE [dbo].[WorkSubcategory]
```

```
(
[WorkSubcategoryID] [tinyint] NOT NULL IDENTITY(1, 1),
[WorkCategoryID] [tinyint] NULL,
[SubcategoryName] [varchar] (120) COLLATE Hungarian_CI_AS NULL,
[SubcategoryNameDE] [varchar] (120) COLLATE Hungarian_CI_AS NULL,
[SubcategoryNameEN] [varchar] (120) COLLATE Hungarian_CI_AS NULL,
[ModifiedDate] [datetime] NULL
) ON [PRIMARY]
GO
ALTER TABLE [dbo].[WorkSubcategory] ADD CONSTRAINT [PK__WorkSubc__CEBC94D7A49D9307] PRIMARY
KEY CLUSTERED ([WorkSubcategoryID]) ON [PRIMARY]
GO
ALTER TABLE [dbo].[WorkSubcategory] ADD CONSTRAINT [FK__WorkSubca__WorkC__31B762FC] FOREIGN
KEY ([WorkCategoryID]) REFERENCES [dbo].[WorkCategory] ([WorkCategoryID])
GO
GRANT DELETE ON  [dbo].[WorkSubcategory] TO [WorkAdmin]
GO
GRANT INSERT ON  [dbo].[WorkSubcategory] TO [WorkAdmin]
GO
GRANT SELECT ON  [dbo].[WorkSubcategory] TO [WorkAdmin]
GO
GRANT UPDATE ON  [dbo].[WorkSubcategory] TO [WorkAdmin]
GO
```

Uses

[dbo].[WorkCategory]

Used By

[dbo].[Work]

Views

A view esetében megkülönböztetek **statisztikai**, és *segéd view* elemeket is.

A tényleges, statisztikai view elemek vStat-al kezdődnek.

A többi igazából segéd célból került beépítésre a véletlenszerű adatfeltöltéshez, hogy használható legyen tárolt eljáráshoz is.

Alapból a nem determinisztikus függvények nem használhatók tárolt eljárásban, viszont egy View használata után már igen, ezért kerültek ezek beépítésre.

Objects

Name
dbo.NewID
dbo.vRand
dbo.vRandomDeviceType
dbo.vRandomExternalJobDescription
dbo.vRandomJobDescription
dbo.vRandomMailProvider
dbo.vRandomStreet
dbo.vRandomWorkerDescription
dbo.vStatCustomerBuyerCard
dbo.vStatCustomerCity
dbo.vStatCustomerCounty
dbo.vStatWorksheet

[dbo].[NewID]

Segéd view a tárolt eljárásokhoz, a véletlenszerű adatfeltöltéshez.

Properties

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True
Created	20:01:21 2023. május 5., péntek
Last Modified	20:01:21 2023. május 5., péntek

Columns

Name	Data Type	Max Length (Bytes)
NewID	uniqueidentifier	16

SQL Script

```
-- View for NewID

CREATE   VIEW [dbo].[NewID]
AS
SELECT NEWID() AS [NewID]

GO
```

Used By

[dbo].[GenerateRandomPhoneNumber]

[dbo].[vRand]

Segéd view a tárolt eljárásokhoz, a véletlenszerű adatfeltöltéshez.

Properties

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True
Created	20:01:20 2023. május 5., péntek
Last Modified	20:01:20 2023. május 5., péntek

Columns

Name	Data Type	Max Length (Bytes)
rRand	float	8

SQL Script

```
CREATE   VIEW [dbo].[vRand]
AS
SELECT rand() AS rRand

GO
```

Used By

[dbo].[ReturnRand]

[dbo].[vRandomDeviceType]

Segéd view a tárolt eljárásokhoz, a véletlenszerű adatfeltöltéshez.

Properties

Property	Value
Collation	Hungarian_CI_AS
ANSI Nulls On	True
Quoted Identifier On	True
Created	20:01:20 2023. május 5., péntek
Last Modified	20:01:20 2023. május 5., péntek

Columns

Name	Data Type	Max Length (Bytes)
value	varchar(82)	82

SQL Script

```
CREATE   VIEW [dbo].[vRandomDeviceType]
AS SELECT TOP 1 value FROM STRING_SPLIT('Asus PC,Lenovo PC,Acer Nitro5 Notebook,Asus ROG Zephyrus G15,Asus ROG Zephyrus G17', ',') order by newid()

-- SELECT * FROM vRandomDeviceType
GO
```

Used By

[dbo].[CreateRandomWorksheet]

[dbo].[vRandomExternalJobDescription]

Segéd view a tárolt eljárásokhoz, a véletlenszerű adatfeltöltéshez.

Properties

Property	Value
Collation	Hungarian_CI_AS
ANSI Nulls On	True
Quoted Identifier On	True
Created	20:01:20 2023. május 5., péntek
Last Modified	20:01:20 2023. május 5., péntek

Columns

Name	Data Type	Max Length (Bytes)
value	varchar(34)	34

SQL Script

```
CREATE   VIEW [dbo].[vRandomExternalJobDescription]
AS SELECT TOP 1 value FROM STRING_SPLIT('Internet bekötés,Fejállomás építés', ',') order by newid()

-- SELECT * FROM vRandomExternalJobDescription

GO
```

Used By

[dbo].[CreateRandomWorksheet]

[dbo].[vRandomJobDescription]

Segéd view a tárolt eljárásokhoz, a véletlenszerű adatfeltöltéshez.

Properties

Property	Value
Collation	Hungarian_CI_AS
ANSI Nulls On	True
Quoted Identifier On	True
Created	20:01:20 2023. május 5., péntek
Last Modified	20:01:20 2023. május 5., péntek

Columns

Name	Data Type	Max Length (Bytes)
value	varchar(124)	124

SQL Script

```
CREATE   VIEW [dbo].[vRandomJobDescription]
AS SELECT TOP 1 value FROM STRING_SPLIT('Nem indul a windows 10,Nem indul a windows 11,Túl lassú a gép,Office telepítést kértek,Linux telepítést kértek adatmentéssel', ',') order by newid()


-- SELECT * FROM vRandomJobDescription


GO
```

Used By

[dbo].[CreateRandomWorksheet]

[dbo].[vRandomMailProvider]

Segéd view a tárolt eljárásokhoz, a véletlenszerű adatfeltöltéshez.

Properties

Property	Value
Collation	Hungarian_CI_AS
ANSI Nulls On	True
Quoted Identifier On	True
Created	20:01:20 2023. május 5., péntek
Last Modified	20:01:20 2023. május 5., péntek

Columns

Name	Data Type	Max Length (Bytes)
value	varchar(96)	96

SQL Script

```
CREATE   VIEW [dbo].[vRandomMailProvider]
AS SELECT TOP 1 value FROM STRING_-
SPLIT('@gmail.com,@hotmail.com,@citromail.hu,@freemail.hu,@protonmail.com,@outlook.com,@onmi
crosoft.com', ',') order by newid()

-- SELECT * FROM vRandomMailProvider



-- Creating Usable random function

GO
```

Used By

[dbo].[CreateRandomCustomer]

[dbo].[vRandomStreet]

Segéd view a tárolt eljárásokhoz, a véletlenszerű adatfeltöltéshez.

Properties

Property	Value
Collation	Hungarian_CI_AS
ANSI Nulls On	True
Quoted Identifier On	True
Created	20:01:20 2023. május 5., péntek
Last Modified	20:01:20 2023. május 5., péntek

Columns

Name	Data Type	Max Length (Bytes)
value	varchar(94)	94

SQL Script

```
CREATE   VIEW [dbo].[vRandomStreet]
AS SELECT TOP 1 value FROM STRING_SPLIT('Kossuth u.,Petőfi u.,Arany János u.,Petőfi
u.,Rákóczi u.,József Attila u.,Béke u.,Szabadság u.', ',') order by newid()

-- SELECT * FROM vRandomStreet

GO
```

Used By

[dbo].[CreateRandomCustomer]

[dbo].[vRandomWorkerDescription]

Segéd view a tárolt eljárásokhoz, a véletlenszerű adatfeltöltéshez.

Properties

Property	Value
Collation	Hungarian_CI_AS
ANSI Nulls On	True
Quoted Identifier On	True
Created	20:01:20 2023. május 5., péntek
Last Modified	20:01:20 2023. május 5., péntek

Columns

Name	Data Type	Max Length (Bytes)
value	varchar(62)	62

SQL Script

```
CREATE   VIEW [dbo].[vRandomWorkerDescription]
AS SELECT TOP 1 value FROM STRING_SPLIT('Valami megjegyzés .,Valami megjegyzés ..,Valami
megjegyzés ...', ',') order by newid()

-- SELECT * FROM vRandomWorkerDescription

GO
```

Used By

[dbo].[CreateRandomWorksheet]

[dbo].[vStatCustomerBuyerCard]

Ez a view visszaadja az ügyfelek adatait, csoportosítva, hogy hány munkalap tartozik hozzájuk, és hogy rendelkeznek-e vevő kártyával. Pl. Tudunk nekik e-mailben javasolni kedvezményért.

	CustomerID	CustomName	CustomerAddress	Email	PhoneNumber	Worksheets	BuyerCard
1	78161	Varadi Noel	8994 ,Kávás ,József Attila u.45	Varadi.Noel72@gmail.com	+36 30 948-3910	8	0
2	25861	Somogyi Anita	7663 ,Máriakéménd ,Szabadság u.63	Somogyi.Anita214@citromail.hu	+36 30 550-7540	8	0
3	5410	Szücs Roland	8134 ,Mátyásdomb ,Béke u.27	Szucs.Roland148@outlook.com	+36 20 084-6197	8	0
4	61707	Virág Pál	7193 ,Regöly ,József Attila u.13	Virag.Pal188@hotmail.com	+36 30 617-9854	8	0
5	75455	Sipos Luca	7443 ,Somogyjád ,Petőfi u.27	Sipos.Luca180@hotmail.com	+36 20 744-0023	8	0
6	96113	László Szilveszter	7775 ,Lapáncsa ,Kossuth u.75	Laszlo.Szilveszter157@gmail.com	+36 70 151-2869	8	0
7	15820	Vörös Richárd	1215 ,Budapest ,József Attila u.24	Voros.Richard154@freemail.hu	+36 30 986-9790	7	0

Properties

Property	Value
Collation	Hungarian_CI_AS
ANSI Nulls On	True
Quoted Identifier On	True
Created	20:01:20 2023. május 5., péntek
Last Modified	20:01:20 2023. május 5., péntek

Columns

Name	Data Type	Max Length (Bytes)
CustomerID	int	4
CustomName	varchar(61)	61
CustomerAddress	varchar(164)	164
Email	varchar(90)	90
PhoneNumber	varchar(20)	20
Worksheets	int	4
BuyerCard	bit	1

SQL Script

```
CREATE   VIEW [dbo].[vStatCustomerBuyerCard]
AS
SELECT  W.CustomerID, CONCAT (C.LastName, ' ', C.FirstName) AS CustomName,CONCAT (A.Postal-
Code, ' ,', A.CityName, ' ,', A.AddressLine1) AS CustomerAddress, C.Email,C.PhoneNumber,
Count(WorksheetID) AS Worksheets,HasBuyerCard AS BuyerCard FROM Worksheet W
INNER JOIN Customer C ON C.CustomerID = W.CustomerID
INNER JOIN Service S ON S.ServiceCode = W.ServiceCode
INNER JOIN Address A ON A.CustomerID = W.CustomerID
GROUP BY W.CustomerID,CONCAT (C.LastName, ' ', C.FirstName), A.PostalCode,A.City-
Name,A.AddressLine1, C.Email,C.PhoneNumber, C.HasBuyerCard

-- SELECT * FROM vStatCustomerBuyerCard ORDER BY 6 DESC

-- Stat BuyerCard (Customer Number / City)
```

```
GO
```

Uses

[dbo].[Address]
[dbo].[Customer]
[dbo].[Service]
[dbo].[Worksheet]

[dbo].[vStatCustomerCity]

Ez egy statisztikai view, amely visszaadja, hogy melyik városban hány ügyféllel rendelkezünk.

	CityName	CustomerNumber
1	Budapest	4771
2	Pécs	637
3	Miskolc	561
4	Debrecen	534
5	Szeged	424
6	Győr	332
7	Felsőszenterzsébet	221
8	Csesztreg	221
9	Alsószenterzsébet	221

Properties

Property	Value
Collation	Hungarian_CI_AS
ANSI Nulls On	True
Quoted Identifier On	True
Created	20:01:20 2023. május 5., péntek
Last Modified	20:01:20 2023. május 5., péntek

Columns

Name	Data Type	Max Length (Bytes)
CityName	varchar(50)	50
CustomerNumber	int	4

SQL Script

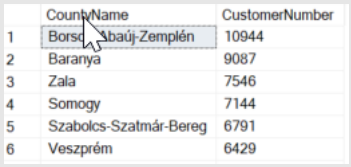
```
CREATE   VIEW [dbo].[vStatCustomerCity]
AS
SELECT PC.CityName, COUNT(C.CustomerID) AS CustomerNumber FROM PostalCode PC
INNER JOIN Address A ON A.PostalCode = PC.PostalCode
INNER JOIN Customer C ON C.CustomerID = A.CustomerID
GROUP BY PC.CityName

-- SELECT * FROM vStatCustomerCity ORDER BY 2 DESC

-- Stat BuyerCard (Customer Number / County)

GO
```

Uses

[dbo].[Address]
[dbo].[Customer]
[dbo].[PostalCode]

[dbo].[vStatCustomerCounty]

Ez a view pedig megyénként csoportosítva jeleníti meg az ügyfelek számát.



	CountyName	CustomerNumber
1	Borsod-Abaúj-Zemplén	10944
2	Baranya	9087
3	Zala	7546
4	Somogy	7144
5	Szabolcs-Szatmár-Bereg	6791
6	Veszprém	6429

Properties

Property	Value
Collation	Hungarian_CI_AS
ANSI Nulls On	True
Quoted Identifier On	True
Created	20:01:20 2023. május 5., péntek
Last Modified	20:01:20 2023. május 5., péntek

Columns

Name	Data Type	Max Length (Bytes)
CountyName	varchar(50)	50
CustomerNumber	int	4

SQL Script

```
CREATE   VIEW [dbo].[vStatCustomerCounty]
AS
SELECT DC.CountyName, COUNT(DISTINCT(C.CustomerID)) AS CustomerNumber FROM PostalCode PC
INNER JOIN Address A ON A.PostalCode = PC.PostalCode
INNER JOIN Customer C ON C.CustomerID = A.CustomerID
INNER JOIN DictCounty DC ON DC.CountyID = PC.CountyID
GROUP BY DC.CountyName

-- SELECT * FROM vStatCustomerCounty ORDER BY 2 DESC

GO
```

Uses

[dbo].[Address]
[dbo].[Customer]
[dbo].[DictCounty]
[dbo].[PostalCode]

[dbo].[vStatWorksheet]

Ez a view Szervízenként, és évenként csoportosítja az elvégzett munkák számát.

	ServiceName	2015	2016	2017	2018	2019	2020	2021	2022	2023
1	Commtech 96 Kft.	4277	4201	4298	4235	4159	4287	4159	4263	962
2	Electronic4You	4218	4160	4275	4305	4308	4252	4262	4240	1007
3	Visionet Kft.	4289	4412	4200	4229	4166	4202	4312	4173	971

Properties

Property	Value
Collation	Hungarian_CI_AS
ANSI Nulls On	True
Quoted Identifier On	True
Created	20:01:20 2023. május 5., péntek
Last Modified	20:01:20 2023. május 5., péntek

Columns

Name	Data Type	Max Length (Bytes)
ServiceName	varchar(100)	100
2015	int	4
2016	int	4
2017	int	4
2018	int	4
2019	int	4
2020	int	4
2021	int	4
2022	int	4
2023	int	4

SQL Script

```
CREATE   VIEW [dbo].[vStatWorksheet]
AS
SELECT *
FROM (
  SELECT S.ServiceName, YEAR(W.TimeOfIssue) AS Year, COUNT(WorksheetID) AS AllWorksheet
  FROM Worksheet W
  INNER JOIN Service S ON S.ServiceCode = W.ServiceCode
  WHERE YEAR(W.TimeOfIssue) BETWEEN 2015 AND 2023
  GROUP BY S.ServiceCode, S.ServiceName, YEAR(W.TimeOfIssue)
) AS DataSource
PIVOT (
  SUM(AllWorksheet)
  FOR Year IN ([2015],[2016],[2017],[2018],[2019], [2020], [2021], [2022], [2023])
) AS WorksheetStat;
```

```
-- SELECT * FROM vStatWorksheet

-- Stat BuyerCard (Customer, Worksheet Number)

GO
```

Uses

[dbo].[Service]
[dbo].[Worksheet]

Stored Procedures

Itt több eltérő funkcionalitású tárolt eljárás található. Adatgeneráláshoz, importáláshoz, lekérdezéshez, ill. LDAP (Active Directory) szinkronizációhoz is.

Az App sémában lévők azt a célt szolgálják, hogy egy kliensprogram számára semmilyen más jogot nem biztosítok, csak az adott sémában lévő tárolt eljárások futtatását.

Objects

Name
app.GetWorksByWorksheetNumber
app.GetWorksByWorksheetNumberDE
app.GetWorksByWorksheetNumberEN
dbo.AddRandomWorkToWorksheet
dbo.CreateCustomer
dbo.CreateRandomCustomer
dbo.CreateRandomWorksheet
dbo.CreateWork
dbo.CreateWorksheet
dbo.CreateWorkToWorksheet
dbo.CsvImport
dbo.GetUsedComponentsByWorksheetNumber
dbo.GetWorksByWorksheetNumber
dbo.GetWorksheetBasicData
dbo.LDAPImport

[app].[GetWorksByWorksheetNumber]

Ez a tárolt eljárás egy adott munkalapszám alapján adja vissza az elvégzett munkákat. A SubTotal számításánál figyelembe van véve, hogy óradíja, vagy fix áras a szolgáltatás.

Pl. `EXEC App.GetWorksByWorksheetNumber @Worksheetnumber='WS-HU000001'`

	WorksheetNumber	Worker	WorkName	Price	Quantity	SubTotal	WorkerDescription
1	WS-HU000001	Horvath Attila	Bevizsgálás	3000,00	1	3000,00	Hát igen a Windows az egy csoda ...
2	WS-HU000001	Horvath Attila	Linux telepítés	6000,00	1	6000,00	Végre egy értelmes munka ...
3	WS-HU000001	István Kiss	Szoftver telepítés	3000,00	2	6000,00	Junior még a kolléga, nemgond legalább lesz bevé...

Properties

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

Parameters

Name	Data Type	Max Length (Bytes)
@Worksheetnumber	varchar(11)	11

SQL Script

```
CREATE   PROCEDURE [app].[GetWorksByWorksheetNumber]
@Worksheetnumber varchar(11)
AS
SELECT
W.WorksheetNumber,CONCAT (C.LastName + ' ', C.MiddleName + ' ' + C.FirstName)  AS Worker,
WO.WorkName AS WorkName, IIF(WO.HourlyWorkPrice IS NULL,WO.Price,WO.HourlyWorkPrice) AS
Price,WD.Quantity,
CASE
    WHEN
    WO.iSHourlyWork = 0 THEN WO.Price
    ELSE WO.HourlyWorkPrice * WD.Quantity
END
AS SubTotal, WD.WorkerDescription
FROM Worksheet W
LEFT JOIN WorksheetDetail WD ON WD.WorksheetID = W.WorksheetID
LEFT JOIN Work WO ON WO.WorkID = WD.WorkID
LEFT JOIN Worker WR ON WR.WorkerID = WD.WorkerID
LEFT JOIN Customer C ON C.CustomerID = WR.CustomerID
WHERE WorksheetNumber = @Worksheetnumber
GO
```

Uses

[dbo].[Customer]
[dbo].[Work]

[dbo].[Worker]
[dbo].[Worksheet]
[dbo].[WorksheetDetail]
app

workrouter

[app].[GetWorksByWorksheetNumberDE]

Ez a tárolt eljárás a korábbival egyenértékű, annyi változtatással, hogy az adott országhoz tartozó árazást, és munka megnevezést használja.

Pl. `EXEC App.GetWorksByWorksheetNumberDE @Worksheetnumber='WS-HU000001'`

	WorksheetNumber	Worker	WorkName	Price	Quantity	SubTotal	WorkerDescription
1	WS-HU000001	Horvath Attila	Inspektion	20,00	1	20,00	Hát igen a Windows az egy csoda ...
2	WS-HU000001	Horvath Attila	Linux Installation	20,00	1	20,00	Végre egy értelmes munka ...
3	WS-HU000001	István Kiss	App Installation	20,00	2	40,00	Junior még a kolléga, nemgond legalább lesz bevé...

Properties

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

Parameters

Name	Data Type	Max Length (Bytes)
@Worksheetnumber	varchar(11)	11

SQL Script

```
CREATE   PROCEDURE [app].[GetWorksByWorksheetNumberDE]
@Worksheetnumber varchar(11)
AS
SELECT
W.WorksheetNumber,CONCAT (C.LastName + ' ', C.MiddleName + ' ' + C.FirstName)  AS Worker,
WO.WorkNameDE AS WorkName, IIF(WO.HourlyWorkPriceDE IS NULL,WO.PriceDE,WO.HourlyWorkPriceEN)
AS Price,WD.Quantity,
CASE
    WHEN
    WO.iSHourlyWork = 0 THEN WO.PriceDE
    ELSE WO.HourlyWorkPriceDE * WD.Quantity
END
AS SubTotal, WD.WorkerDescription
FROM Worksheet W
LEFT JOIN WorksheetDetail WD ON WD.WorksheetID = W.WorksheetID
LEFT JOIN Work WO ON WO.WorkID = WD.WorkID
LEFT JOIN Worker WR ON WR.WorkerID = WD.WorkerID
LEFT JOIN Customer C ON C.CustomerID = WR.CustomerID
WHERE WorksheetNumber = @Worksheetnumber
GO
```

Uses

[dbo].[Customer]
[dbo].[Work]
[dbo].[Worker]

[dbo].[Worksheet]
[dbo].[WorksheetDetail]
app

[app].[GetWorksByWorksheetNumberEN]

Ez a tárolt eljárás a korábbival egyenértékű, annyi változtatással, hogy az adott országhoz tartozó árazást, és munka megnevezést használja.

Pl. `EXEC App.GetWorksByWorksheetNumberEN @Worksheetnumber='WS-HU000001'`

	WorksheetNumber	Worker	WorkName	Price	Quantity	SubTotal	WorkerDescription
1	WS-HU000001	Horvath Attila	Inspection	20,00	1	20,00	Hát igen a Windows az egy csoda ...
2	WS-HU000001	Horvath Attila	Linux Install	20,00	1	20,00	Végre egy értelmes munka ...
3	WS-HU000001	István Kiss	Application Innstal	20,00	2	40,00	Junior még a kolléga, nemgond legalább lesz bevé...

Properties

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

Parameters

Name	Data Type	Max Length (Bytes)
@Worksheetnumber	varchar(11)	11

SQL Script

```
CREATE   PROCEDURE [app].[GetWorksByWorksheetNumberEN]
@Worksheetnumber varchar(11)
AS
SELECT
W.WorksheetNumber,CONCAT (C.LastName + ' ', C.MiddleName + ' ' + C.FirstName)  AS Worker,
WO.WorkNameEN AS WorkName, IIF(WO.HourlyWorkPriceEN IS NULL,WO.PriceEN,WO.HourlyWorkPriceEN)
AS Price,WD.Quantity,
CASE
    WHEN
    WO.iSHourlyWork = 0 THEN WO.PriceEN
    ELSE WO.HourlyWorkPriceEN * WD.Quantity
END
AS SubTotal, WD.WorkerDescription
FROM Worksheet W
LEFT JOIN WorksheetDetail WD ON WD.WorksheetID = W.WorksheetID
LEFT JOIN Work WO ON WO.WorkID = WD.WorkID
LEFT JOIN Worker WR ON WR.WorkerID = WD.WorkerID
LEFT JOIN Customer C ON C.CustomerID = WR.CustomerID
WHERE WorksheetNumber = @Worksheetnumber
GO
```

Uses

[dbo].[Customer]
[dbo].[Work]
[dbo].[Worker]

[dbo].[Worksheet]
[dbo].[WorksheetDetail]
app

[dbo].[AddRandomWorkToWorksheet]

Ez a tárolt eljárás az adatgeneráláshoz szükséges.

Properties

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

Parameters

Name	Data Type	Max Length (Bytes)
@WorksheetID	int	4
@WorkerID	smallint	2
@WorkID	smallint	2
@Quantity	tinyint	1
@WorkerDescription	varchar(120)	120
@CompletionTime	datetime	8

SQL Script

```
CREATE   PROCEDURE [dbo].[AddRandomWorkToWorksheet]
    @WorksheetID int,
    @WorkerID smallint,
    @WorkID smallint,
    @Quantity tinyint,
    @WorkerDescription varchar(120),
    @CompletionTime datetime

AS

INSERT INTO WorksheetDetail(WorksheetID,WorkerID,WorkID,Quantity,Worker-
Description,CompletionTime) VALUES (@WorksheetId,@WorkerID,@WorkID,@Quantity,@Worker-
Description,@CompletionTime)

GO
```

Uses

[dbo].[WorksheetDetail]

Used By

[dbo].[CreateRandomWorksheet]

[dbo].[CreateCustomer]

Ez egy ügyfél létrehozó tárolt eljárás.

Itt kerül felhasználásra a majd később bemutatásra kerülő EmailCheck függvény is, amely .NET Clr segítségével lett implementálva.

Properties

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

Parameters

Name	Data Type	Max Length (Bytes)
@FirstName	varchar(30)	30
@MiddleName	varchar(20)	20
@LastName	varchar(20)	20
@PhoneNumber	varchar(20)	20
@Email	varchar(90)	90
@isNewsletter	bit	1

SQL Script

```
CREATE   PROCEDURE [dbo].[CreateCustomer]
 @FirstName varchar(30),@MiddleName varchar(20), @LastName varchar(20), @PhoneNumber
varchar(20), @Email varchar(90), @isNewsletter bit
AS
IF (@FirstName ='' OR @LastName ='' OR @PhoneNumber ='' OR @Email ='')
    RETURN 1

DECLARE @password varchar(8)
DECLARE @EmailCheck char(3)
SET @Password =(SELECT LEFT(NEWID(),8))
SET @EmailCheck = dbo.EmailCheck(@Email)

IF @EmailCheck = 'Bad'
    RETURN 2

IF @MiddleName = ''
SET @MiddleName = NULL

INSERT INTO Customer VALUES (@FirstName,@MiddleName,@LastName,@Email,'1',@Password,@Phone-
Number,NULL,@isNewsletter,'0',NULL,0,0,NULL,0,NULL)
RETURN 0
GO
```

Uses

[dbo].[Customer]
[dbo].[EmailCheck]

Used By

[dbo].[LDAPImport]

[dbo].[CreateRandomCustomer]

Ez a tárolt eljárás az adatgeneráláshoz szükséges.
A magyar posta hivatalos adatai alapján állítottam össze a szükséges CSV fájlokat.

Properties

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

Parameters

Name	Data Type	Max Length (Bytes)
@count	int	4

SQL Script

```
CREATE   PROCEDURE [dbo].[CreateRandomCustomer]
@count int
AS

DECLARE @i int
SET @i = 0
BEGIN
    DROP TABLE IF EXISTS #Names
    CREATE TABLE #Names (Lastname varchar(100))
    BULK INSERT #Names
            FROM 'D:\GoogleDrive\T360\Vizsgaremek\csaladnevek.csv'
            WITH (FIELDTERMINATOR =';',  ROWTERMINATOR ='\n', CODEPAGE = 'ACP', FIRSTROW =
2)

    -- SELECT * FROM #Names


    DROP TABLE IF EXISTS #Names2
    CREATE TABLE #Names2 (Firstname varchar(100))
    BULK INSERT #Names2
            FROM 'D:\GoogleDrive\T360\Vizsgaremek\utonevek.csv'
            WITH (FIELDTERMINATOR =';',  ROWTERMINATOR ='\n', CODEPAGE = 'ACP', FIRSTROW =
2)

    -- SELECT * FROM #Names2


END
WHILE @i < @count

    BEGIN
    DECLARE @RandomEmailProvider varchar(50), @RandomEmailNumber varchar(3)
    SET @RandomEmailProvider = (SELECT * FROM vRandomMailProvider)
    SET @RandomEmailNumber = (SELECT CAST(dbo.ReturnRandFromTo(0,255) AS VARCHAR(3)))
```

```
    SET @i = @i + 1
    DROP TABLE IF EXISTS #TempData
    SELECT TOP 1 N.Lastname,N2.Firstname, CONCAT(dbo.AccentConverter(N.Lastname), + '.',
dbo.AccentConverter(Firstname) + @RandomEmailNumber, + @RandomEmailProvider) AS
Email,dbo.GenerateRandomPhoneNumber() AS PhoneNumber
    INTO #TempData
    FROM #Names2 N2
    CROSS JOIN #Names N
    ORDER BY NEWID()

    DECLARE @FirstName varchar(30), @LastName varchar(20), @PhoneNumber varchar(20), @Email
varchar(90)

    SET @FirstName = (SELECT Firstname FROM #TempData)
    SET @LastName = (SELECT Lastname FROM #TempData)
    SET @PhoneNumber = (SELECT PhoneNumber FROM #TempData)
    SET @Email = (SELECT Email FROM #TempData)

    -- Generate Customer Password
    DECLARE @Password VARCHAR(8)
    SET @Password =(SELECT LEFT(NEWID(),8))

    INSERT INTO Customer VALUES (@FirstName,NULL,@LastName,@Email,'1',@Password,@Phone-
Number,NULL,'0','0',NULL,0,0,NULL,0,NULL)

    DECLARE @CustomerID int , @Street varchar(100), @StreetNumber tinyint,@RandomPostalCode-
ID smallint,@RandomPostalCode varchar(10),@RandomCity varchar(50),@CompleteAddress
varchar(200)



    SET @CustomerID = SCOPE_IDENTITY()
    SET @RandomPostalCodeID = (SELECT dbo.ReturnRandFromTo(1,3570))

    SET @RandomPostalCode = (SELECT PC.PostalCode FROM PostalCode PC WHERE PC.PostalCodeID =
@RandomPostalCodeID)
    SET @RandomCity = (SELECT PC.CityName FROM PostalCode PC WHERE PC.PostalCodeID =
@RandomPostalCodeID)

    SET @Street = (SELECT * FROM vRandomStreet)
    SET @StreetNumber = (SELECT dbo.ReturnRandFromTo(1,120))



    SET @CompleteAddress = CONCAT(@Street, @StreetNumber)



    INSERT INTO dbo.Address (CustomerID,CountryCode,PostalCode,CityName,Address-
Line1,Addressline2,AddressFrom,AddressTo) VALUES (@CustomerID,'HU',@RandomPostal-
Code,@RandomCity,@CompleteAddress,NULL,GETDATE(),NULL)

END



GO
```

Uses

[dbo].[Address]
[dbo].[Customer]

[dbo].[PostalCode]
[dbo].[vRandomMailProvider]
[dbo].[vRandomStreet]
[dbo].[AccentConverter]
[dbo].[GenerateRandomPhoneNumber]
[dbo].[ReturnRandFromTo]

workrouter

[dbo].[CreateRandomWorksheet]

Ez a tárolt eljárás az adatgeneráláshoz szükséges.

Properties

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

Parameters

Name	Data Type	Max Length (Bytes)
@count	int	4

SQL Script

```
CREATE   PROCEDURE [dbo].[CreateRandomWorksheet]
@count int
AS
    BEGIN
    DECLARE @i int
    SET @i = 0
    DECLARE @Worksheetrecorder int,@CustomerID int,@SiteCode int,@DeviceName
varchar(120),@DeviceSerialNumber varchar(100),@JobDescription varchar(120),@ServiceCode int,
@RandomStatusCode tinyint, @isExternal tinyint,@RandomExternalJobDescription varchar(120)
    WHILE @i < @count
    BEGIN
        -- PRINT 'Debug';
        SET @i = @i + 1
        SET @CustomerID = (SELECT dbo.ReturnRandFromTo(7,100000))
        SET @ServiceCode = (SELECT dbo.ReturnRandFromTo(1,3))
        SET @RandomStatusCode = (SELECT dbo.ReturnRandFromTo(1,3))

        -- Creating some more demo data (external worksheet too)
        SET @isExternal = (SELECT dbo.ReturnRandFromTo(0,1))
        DECLARE @wcount int, @RandomWorkId int, @RandomQuantity int
        SET @wcount = 0
            IF @isExternal = 1
            BEGIN
                SET @RandomQuantity =1
                SET @DeviceName = NULL
                SET @DeviceSerialNumber = NULL
                SET @JobDescription = NULL
                SET @wcount = 1
                SET @RandomExternalJobDescription = (SELECT * FROM vRandomExternalJob-
Description)
                    BEGIN
                        -- (@RandomWorkId 6,7 = GPON, DSL internet bekötés )
                            IF @RandomExternalJobDescription = 'Internet bekötés'
                            BEGIN
```

```
                                SET @RandomWorkId = (SELECT dbo.ReturnRandFromTo(6,7))
                            END
                            -- (@RandomWorkId 9  = Fejállomás építés )
                             IF @RandomExternalJobDescription = 'Fejállomás építés'
                             BEGIN
                                SET @RandomWorkId = 9
                             END
                    END
            END
        ELSE
        BEGIN
        -- If we have internal worksheet
            SET @RandomExternalJobDescription = NULL
            SET @JobDescription = (SELECT * FROM vRandomJobDescription)
            SET @DeviceName = (SELECT * FROM vRandomDeviceType)
            SET @DeviceSerialNumber = (SELECT dbo.ReturnRandFromTo(35000,95000))
        -- (@RandomWorkId 4,5 = Bevizsgálás / Szoftver telepítés )
            SET @RandomWorkId = (SELECT dbo.ReturnRandFromTo(4,5))
            SET @wcount = (SELECT dbo.ReturnRandFromTo(1,3))
            SET @RandomQuantity = (SELECT dbo.ReturnRandFromTo(1,3))
         END
        -- Get Country Code for Worksheet Number
        DECLARE @CountryCode char(2)
        SET @CountryCode = (SELECT DISTINCT A.CountryCode FROM Service S
        INNER JOIN Address A ON A.AddressId = S.AddressID
        WHERE S.ServiceCode = @ServiceCode)

        DECLARE @pr varchar(5)
        SET @pr = CONCAT('WS-', @CountryCode)

        -- Get the next worksheet number
        DECLARE @Worksheetnumber varchar(12)
        SET @Worksheetnumber = (SELECT dbo.GenerateWorksheetNumber(@pr))

        INSERT INTO dbo.Worksheet VALUES(@Worksheetrecorder,@CustomerID,@Site-
Code,@Worksheetnumber,@isExternal,@RandomExternalJobDescription, (SELECT dbo.RandomDate-
Time('2015-01-01 08:00:00','2023-03-26 18:00:00')),@DeviceName,@DeviceSerialNumber,@Job-
Description,@ServiceCode,0,0,@RandomStatusCode,NULL)

        -- Get the last WorksheetID
        DECLARE @WorksheetId int
        SET @WorksheetId = (SELECT SCOPE_IDENTITY())
        --Debug Print @WorksheetId

        DECLARE @RandomWorkerDescription varchar(120)
        DECLARE @ModifiedCompletionTime datetime
        DECLARE @TimeOfIssue datetime

        SET @TimeOfIssue  = (SELECT TimeOfIssue FROM Worksheet WHERE WorksheetID =
@WorksheetId)
        SET @ModifiedCompletionTime = (SELECT DATEADD(HOUR,-3,@TimeOfIssue))

        -- Add random data to worksheet detail based on worksheetID
        DECLARE @wi int
        SET @wi = 0

        WHILE @wi < @wcount
        BEGIN
```

```
            SET @wi = @wi + 1
            SET @Worksheetrecorder =  (SELECT dbo.ReturnRandFromTo(1,2))
            SET @RandomWorkerDescription = (SELECT * FROM vRandomWorkerDescription)
            EXEC AddRandomWorkToWorksheet @WorksheetID = @WorksheetId, @WorkerID =
@Worksheetrecorder, @WorkID = @RandomWorkId, @Quantity = @RandomQuantity, @WorkerDescription
= @RandomWorkerDescription, @CompletionTIme = @ModifiedCompletionTime
        END
    END
END

GO
```

Uses

[dbo].[Address]
[dbo].[Service]
[dbo].[Worksheet]
[dbo].[vRandomDeviceType]
[dbo].[vRandomExternalJobDescription]
[dbo].[vRandomJobDescription]
[dbo].[vRandomWorkerDescription]
[dbo].[AddRandomWorkToWorksheet]
[dbo].[GenerateWorksheetNumber]
[dbo].[RandomDateTime]
[dbo].[ReturnRandFromTo]

[dbo].[CreateWork]

Ez a tárolt eljárás a munka rögzítéséhez használható.

Megadható három különböző nyelven a megnevezés, lehet eltérő árazás, és áfa kulcs is.
Megkülönböztethetünk óradíjas, és egységára munkát is.

Properties

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

Parameters

Name	Data Type	Max Length (Bytes)
@WorkCode	varchar(10)	10
@WorkName	varchar(120)	120
@WorkNameDE	varchar(120)	120
@WorkNameEN	varchar(120)	120
@WorkSubCategoryID	tinyint	1
@IsHourlyWork	bit	1
@HourlyWorkPrice	money	8
@HourlyWorkPriceDE	money	8
@HourlyWorkPriceEN	money	8
@VatID	tinyint	1
@VatIdDE	tinyint	1
@VatIdEN	tinyint	1
@Price	money	8
@PriceDE	money	8
@PriceEN	money	8

SQL Script

```
CREATE   PROCEDURE [dbo].[CreateWork]
@WorkCode varchar(10),
@WorkName varchar(120),
@WorkNameDE varchar(120),
@WorkNameEN varchar(120),
@WorkSubCategoryID tinyint,
@IsHourlyWork bit,
@HourlyWorkPrice money,
@HourlyWorkPriceDE money,
@HourlyWorkPriceEN money,
@VatID tinyint,
@VatIdDE tinyint,
```

```
@VatIdEN tinyint,
@Price money,
@PriceDE money,
@PriceEN money

AS
INSERT INTO Work(WorkCode,WorkName,WorkNameDE,WorkNameEN,WorkSubCategoryID,iSHourly-
Work,HourlyWorkPrice,HourlyWorkPriceDE,HourlyWorkPriceEN,VatID,VatIdDE,VatIdEN,Price,Price-
DE,PriceEN)
VALUES(
@WorkCode,@WorkName,@WorkNameDE,@WorkNameEN,@WorkSubCategoryID,@IsHourlyWork,@HourlyWork-
Price,@HourlyWorkPriceDE,@HourlyWorkPriceEN,@VatID,@VatIdDE,@VatIdEN, @Price, @Price-
DE,@PriceEN)

GO
```

Uses

[dbo].[Work]

workrouter

[dbo].[CreateWorksheet]

Ez a tárolt eljárás a munkalap létrehozásra szolgál. Itt megadható belső, és külső munka is.

Belső munkalap esetén lehetőség van az átvett eszköz, és annak sorozatszámának rögzítésére is.

Properties

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

Parameters

Name	Data Type	Max Length (Bytes)
@Worksheetrecorder	int	4
@CustomerID	int	4
@SiteCode	int	4
@ExteranJobDescription	varchar(120)	120
@DeviceName	varchar(120)	120
@DeviceSerialNummber	varchar(100)	100
@JobDescription	varchar(120)	120
@ServiceCode	int	4

SQL Script

```
CREATE   PROCEDURE [dbo].[CreateWorksheet]
@Worksheetrecorder int,
@CustomerID int,
@SiteCode int,
@ExteranJobDescription varchar(120),
@DeviceName varchar(120),
@DeviceSerialNummber varchar(100),
@JobDescription varchar(120),
@ServiceCode int

AS
BEGIN
    DECLARE @CountryCode char(2)
    SET @CountryCode = (SELECT DISTINCT A.CountryCode FROM Service S
    INNER JOIN Address A ON A.AddressId = S.AddressID
    WHERE S.ServiceCode = @ServiceCode)
    DECLARE @pr varchar(5)
    SET @pr = CONCAT('WS-', @CountryCode)
    DECLARE @Worksheetnumber varchar(12)
    SET @Worksheetnumber = (SELECT dbo.GenerateWorksheetNumber(@pr))
    INSERT INTO dbo.Worksheet VALUES(@Worksheetrecorder,@CustomerID,@Site-
Code,@Worksheetnumber,0,@ExteranJobDescription,SYSDATETIME(),@DeviceName,@DeviceSerial-
Nummber,@JobDescription,@ServiceCode,0,0,NULL,NULL)
```

```
END


-- Stat Worksheet (Year, Service, Worksheet Number)

GO
```

Uses

[dbo].[Address]
[dbo].[Service]
[dbo].[Worksheet]
[dbo].[GenerateWorksheetNumber]

[dbo].[CreateWorkToWorksheet]

Ez a tárolt eljárás munkák hozzáadására használható a munkalapokhoz.

Properties

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

Parameters

Name	Data Type	Max Length (Bytes)
@WorkshhetID	int	4
@WorkerID	smallint	2
@WorkID	smallint	2
@Quantity	tinyint	1
@WorkerDescription	varchar(120)	120

SQL Script

```
CREATE   PROCEDURE [dbo].[CreateWorkToWorksheet]
    @WorkshhetID int,
    @WorkerID smallint,
    @WorkID smallint,
    @Quantity tinyint,
    @WorkerDescription varchar(120)

AS
DECLARE @CompletionTime datetime
SET @CompletionTime = (SELECT SYSDATETIME())
INSERT INTO WorksheetDetail(WorksheetID,WorkerID,WorkID,Quantity,Worker-
Description,CompletionTime) VALUES (@WorkshhetID,@WorkerID,@WorkID,@Quantity,@Worker-
Description,@CompletionTime)
GO
```

Uses

[dbo].[WorksheetDetail]

[dbo].[CsvImport]

Ez a tárolt eljárás CSV importot valósít meg dinamikus SQL segítéségével.

Properties

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

Parameters

Name	Data Type	Max Length (Bytes)
@FileName	nvarchar(max)	max
@Codepage	nvarchar(5)	10
@IntoTableName	nvarchar(20)	40
@FormatFile	nvarchar(200)	400

SQL Script

```
-- Stored Procedure CSV Import with Name + Encoding Parameter (CODEPAGE 65001 -> UTF8)

CREATE   PROCEDURE [dbo].[CsvImport]
@FileName nvarchar(max),
@Codepage nvarchar(5),
@IntoTableName nvarchar(20),
@FormatFile nvarchar(200)
AS

DECLARE @Sql nvarchar(max)

SET @Sql = 'BULK INSERT ' + @IntoTableName + '
FROM ''' + @FileName + '''
WITH (FORMATFILE = ''' +@FormatFile+ ''',
      CODEPAGE = ''' + @Codepage + ''',
      firstrow = 2,
      fieldterminator = '','',
      rowterminator=''\n'')'

-- Debug SELECT @Sql
EXEC sp_executesql @Sql
GO
```

[dbo].[GetUsedComponentsByWorksheetNumber]

A korábban már bemutatott App sémában is rendelkezésre álló tárolt eljárás, tesztelési célok miatt maradt bent.

Properties

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

Parameters

Name	Data Type	Max Length (Bytes)
@Worksheetnumber	varchar(11)	11

SQL Script

```
CREATE   PROCEDURE [dbo].[GetUsedComponentsByWorksheetNumber]
@Worksheetnumber varchar(11)
AS
SELECT
W.WorksheetNumber ,CONCAT (C.LastName + ' ', C.MiddleName + ' ' + C.FirstName)  AS Worker-
Name, AC.ComponentName ,AST.SerialNumber
FROM Worksheet W
INNER JOIN UsedComponent UC ON UC.WorksheetID = W.WorksheetID
INNER JOIN AssetStock AST ON AST.AssetID = UC.AssetID
INNER JOIN AssetComponent AC ON AC.ComponentID = AST.ComponentID
INNER JOIN Worker WR ON WR.WorkerID = UC.WorkerID
INNER JOIN Customer C ON C.CustomerID = WR.CustomerID
WHERE WorksheetNumber = @Worksheetnumber
GO
```

Uses

[dbo].[AssetComponent]
[dbo].[AssetStock]
[dbo].[Customer]
[dbo].[UsedComponent]
[dbo].[Worker]
[dbo].[Worksheet]

[dbo].[GetWorksByWorksheetNumber]

A korábban már bemutatott App sémában is rendelkezésre álló tárolt eljárás, tesztelési célok miatt maradt bent.

Properties

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

Parameters

Name	Data Type	Max Length (Bytes)
@Worksheetnumber	varchar(11)	11

SQL Script

```
CREATE   PROCEDURE [dbo].[GetWorksByWorksheetNumber]
@Worksheetnumber varchar(11)
AS
SELECT
W.WorksheetNumber,CONCAT (C.LastName + ' ', C.MiddleName + ' ' + C.FirstName)  AS Worker,
WO.WorkName AS WorkName, IIF(WO.HourlyWorkPrice IS NULL,WO.Price,WO.HourlyWorkPrice) AS
Price,WD.Quantity,
CASE
    WHEN
    WO.iSHourlyWork = 0 THEN WO.Price
    ELSE WO.HourlyWorkPrice * WD.Quantity
END
AS SubTotal, WD.WorkerDescription
FROM Worksheet W
LEFT JOIN WorksheetDetail WD ON WD.WorksheetID = W.WorksheetID
LEFT JOIN Work WO ON WO.WorkID = WD.WorkID
LEFT JOIN Worker WR ON WR.WorkerID = WD.WorkerID
LEFT JOIN Customer C ON C.CustomerID = WR.CustomerID
WHERE WorksheetNumber = @Worksheetnumber
GO
```

Uses

[dbo].[Customer]
[dbo].[Work]
[dbo].[Worker]
[dbo].[Worksheet]
[dbo].[WorksheetDetail]

[dbo].[GetWorksheetBasicData]

Ez a tárolt eljárás egy adott munkához tartozó legfontosabb adatokat adja vissza.

Pl. EXEC GetWorksheetBasicData @Worksheetnumber='WS-HU000002'

WorksheetNumber	WorksheetID	CustomerID	CustomName	CustomerAddress	Email	PhoneNumber	TimeOfIssue
WS-HU000002	2	1	Horvath Adrienn	8315 ,Gyenesdiás ,Lőtéri u. 9.	hadri83@gmail.com	+3620 348-1072	2023-05-05 20:01:21.493

DeviceName	DeviceSerialNummber	JobDescription	ServiceName	RecordedByWorker	WorkerPhoneNui
Asus TUF Gaming Notebook	SN-000123	SSD cserét kértek, és windows telepítést	Visionet Kft.	Horvath Attila	+3620 348-1070

Properties

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

Parameters

Name	Data Type	Max Length (Bytes)
@Worksheetnumber	varchar(11)	11

SQL Script

```
CREATE   PROCEDURE [dbo].[GetWorksheetBasicData]
@Worksheetnumber varchar(11)
AS
SELECT TOP 1 W.WorksheetNumber,W.WorksheetID, W.CustomerID, CONCAT (C.LastName, ' ',
C.FirstName) AS CustomName,CONCAT (A.PostalCode, ' ,', A.CityName, ' ,', A.AddressLine1) AS
CustomerAddress,C.Email,C.PhoneNumber,W.TimeOfIssue, W.DeviceName, W.DeviceSerial-
Nummber,W.JobDescription, S.ServiceName, CONCAT (C2.LastName,' ',C2.FirstName) AS Recorded-
ByWorker,C2.PhoneNumber AS WorkerPhoneNumber FROM Worksheet W
INNER JOIN Service S ON W.ServiceCode = S.ServiceCode
INNER JOIN Worker WK ON WK.WorkerID = WorksheetRecorderID
INNER JOIN Customer C ON C.CustomerID = W.CustomerID
INNER JOIN Customer C2 ON C2.CustomerID = WK.CustomerID AND C2.isWorker =1
INNER JOIN Address A ON A.CustomerID =C.CustomerID
WHERE WorksheetNumber = @Worksheetnumber
GO
```

Uses

[dbo].[Address]
[dbo].[Customer]
[dbo].[Service]
[dbo].[Worker]
[dbo].[Worksheet]

[dbo].[LDAPImport]

Ez a tárolt eljárás egy Active Directory LDAP szinkronizációt valósít meg.

A működéshez értelmezéséhez fontos tudni, hogy a sAMAccountName az LDAP címtárban Unique mező.

Az adatcseréhez szükséges egy Server Object felvétele, és értelemszerűen egy Domain Controller a megfelelő jogosultságokkal.

Pl.

```
EXEC master.dbo.sp_addlinkedserver @server = N'ADSI', @srvproduct=N'Active Directory Services 2.5', @provider=N'ADsDSOObject', @datasrc=N'adsdatasource'

EXEC master.dbo.sp_addlinkedsrvlogin @rmtsrvname=N'ADSI',@useself=N'False',@locallogin=NULL,@rmtuser=N'bryan\Administrator',@rmtpassword='Demo1234#'
```

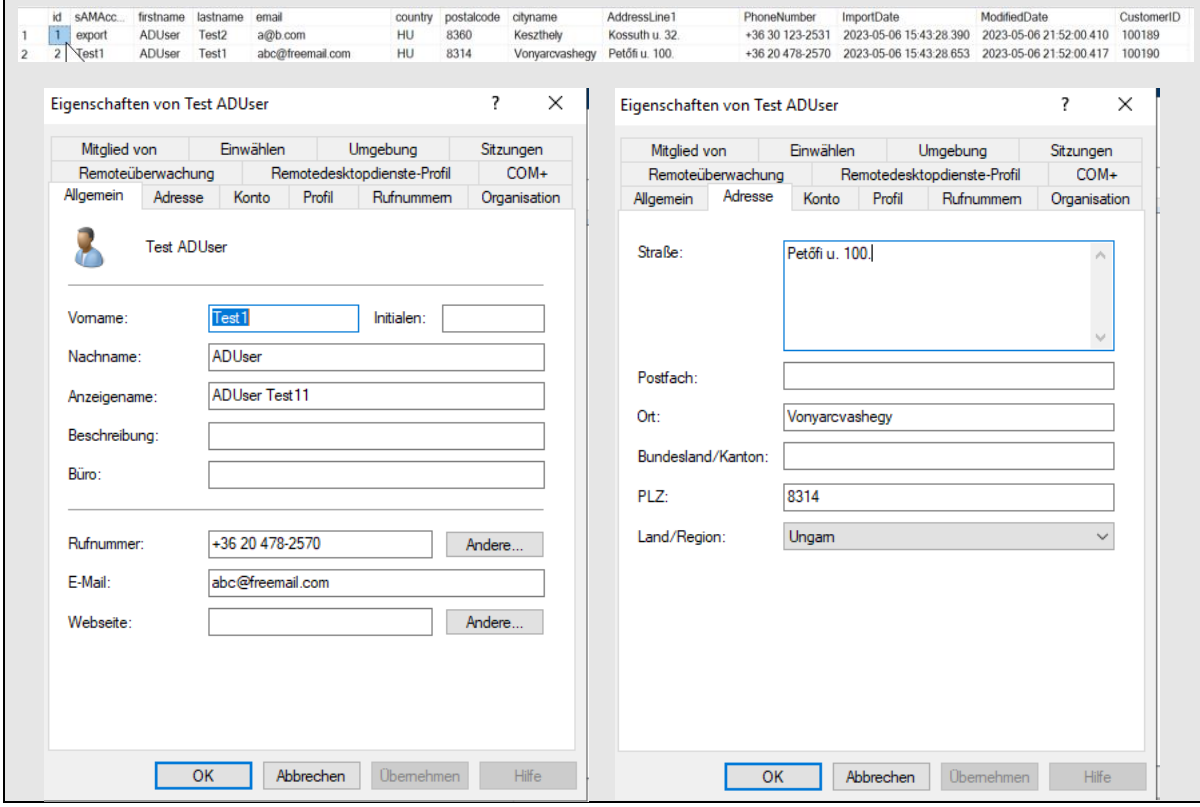
Fontos a megfelelő URL használata a lekérdezéshez.

```
Pl. LDAP://bryan.local/DC=bryan,DC=local
```

A működés röviden:

Amennyiben még nincs ilyen ügyfél rögzítjük az adatokat a Customer táblába, a hozzájuk tartozó címet pedig az Address táblába, és beleírjuk az ADImport táblába is, itt tárolásra kerül az importálás dátuma is.

Abban az esetben pedig, ha már létezik az ügyfél frissítésre kerülnek az adatok az ADImport táblában, majd pedig update történik a Customer és az Address táblában is.



Properties

Property	Value
ANSI Nulls On	True

Quoted Identifier On	True

SQL Script

```
CREATE   PROC [dbo].[LDAPImport]
AS

DROP TABLE ##AdTemp
DROP TABLE ##AdImport

CREATE TABLE ##AdImport
(
id INT PRIMARY KEY IDENTITY(1, 1),
sAMAccountName VARCHAR(30),
firstname VARCHAR(30),
lastname VARCHAR(30),
email VARCHAR(30),
country CHAR(2),
postalcode VARCHAR(10),
cityname VARCHAR(50),
AddressLine1 VARCHAR(100),
PhoneNumber VARCHAR(20)
)

SELECT * INTO ##AdTemp
FROM OPENQUERY(ADSI, 'SELECT c,displayName,sn,givenname, sAMAccountName, mail,postal-
Code,l,streetAddress,telephoneNumber FROM ''LDAP://bryan.local/DC=bryan,DC=local'' WHERE
objectCategory=''user''')

INSERT INTO ##AdImport (country,sAMAccountName,firstname, lastname,
email,postalcode,cityname,AddressLine1,PhoneNumber)
SELECT c,sAMAccountName,sn,givenname,mail,postalCode,l,streetAddress,telephoneNumber
FROM ##AdTemp WHERE sAMAccountName NOT IN('Gast','krbtgt','Administrator')

SELECT * FROM ##AdImport

DECLARE @CustomerID int
DECLARE @SAM VARCHAR(30)
DECLARE @FirstName VARCHAR(30)
DECLARE @MiddleName VARCHAR(30)
DECLARE @LastName VARCHAR(30)
DECLARE @Email VARCHAR(90)
DECLARE @PhoneNumber VARCHAR(20)
DECLARE @Country VARCHAR(10)
DECLARE @Postalcode VARCHAR(10)
DECLARE @CityName VARCHAR(50)
DECLARE @AddressLine1 VARCHAR(100)
DECLARE @UserCheck tinyint
DECLARE @Password varchar(8)
DECLARE @ImportDate datetime
DECLARE @ModifiedDate datetime
DECLARE @AdimportID int
DECLARE @AddressID int
DECLARE @PreCheck int

DECLARE db_cursor CURSOR FOR
SELECT sAMAccountName
```

```
FROM ##AdImport

OPEN db_cursor
FETCH NEXT FROM db_cursor INTO @SAM

WHILE @@FETCH_STATUS = 0
BEGIN
      SET @FirstName = (SELECT firstname FROM ##AdImport WHERE sAMAccountName = @SAM)
      SET @LastName = (SELECT lastname FROM ##AdImport WHERE sAMAccountName = @SAM)
      SET @Email = (SELECT email FROM ##AdImport WHERE sAMAccountName = @SAM)
      SET @PhoneNumber = (SELECT PhoneNumber FROM ##AdImport WHERE sAMAccountName = @SAM)
      SET @Postalcode = (SELECT postalcode FROM ##AdImport WHERE sAMAccountName = @SAM)
      SET @CityName = (SELECT cityname FROM ##AdImport WHERE sAMAccountName = @SAM)
      SET @AddressLine1 = (SELECT AddressLine1 FROM ##AdImport WHERE sAMAccountName = @SAM)
      SET @Country = (SELECT country FROM ##AdImport WHERE sAMAccountName = @SAM)
      SET @MiddleName = NULL
      SET @Password =(SELECT LEFT(NEWID(),8))
      SET @ImportDate =(SELECT SYSDATETIME ())
      SET @ModifiedDate =(SELECT SYSDATETIME ())

      --PreCheck
      -- If User is imported We need to update

      SET @PreCheck = (SELECT count(id) FROM Adimport WHERE sAMAccountName = @SAM)
      SELECT @PreCheck

      IF @PreCheck = 1
      BEGIN

        SET @CustomerID = (SELECT CustomerID FROM Adimport WHERE sAMAccountName = @SAM)
        SET @AdimportID = (SELECT id FROM Adimport WHERE sAMAccountName = @SAM)

        SET @AddressID = (SELECT AddressID FROM Address A WHERE A.CustomerID  = @CustomerID)
        SELECT @AddressID

        -- Update  the real customer table, update tehe Adimport set modification date, and
update address table
        UPDATE Customer SET FirstName = @FirstName, LastName = @LastName,Email =
@Email,PhoneNumber = @PhoneNumber WHERE CustomerID = @CustomerID
        UPDATE Adimport SET FirstName = @FirstName, LastName = @LastName,Email = @Email,
country = @Country, postalcode = @Postalcode, AddressLine1 = @AddressLine1, PhoneNumber =
@PhoneNumber, ModifiedDate = @ModifiedDate  WHERE id = @AdimportID
        UPDATE Address SET CountryCode = @Country, PostalCode = @Postalcode, CityName =
@CityName, AddressLine1 = @AddressLine1 WHERE AddressId = @AddressID

      END

      ELSE IF @PreCheck = 0
        BEGIN

          SET @UserCheck = (SELECT count(CustomerID) FROM Customer C WHERE C.FirstName =
@Firstname and C.LastName = @LastName and C.Email = @Email)
          SELECT @UserCheck

          IF @UserCheck = 0
            BEGIN
                EXEC CreateCustomer @FirstName,@MiddleName,@LastName,@PhoneNumber,@Email,'0'
                SET @CustomerID = (SELECT CustomerID FROM Customer C WHERE C.FirstName =
@Firstname and C.LastName = @LastName and C.Email = @Email)
```

```
                INSERT INTO AdImport (sAMAccountName,firstname ,lastname ,email ,postalcode
,country,cityname,AddressLine1,PhoneNumber,ImportDate,CustomerID)
                VALUES (@SAM,@LastName,@FirstName,@Email,@Postalcode,@Country,@City-
Name,@AddressLine1,@PhoneNumber,@ImportDate,@CustomerID)
                INSERT INTO dbo.Address (CustomerID,CountryCode,PostalCode,CityName,Address-
Line1,Addressline2,AddressFrom,AddressTo) VALUES (@CustomerID,@Country,@Postalcode,@City-
Name,@AddressLine1,NULL,SYSDATETIME(),NULL)
            END

        END

      FETCH NEXT FROM db_cursor INTO @SAM
END

CLOSE db_cursor
DEALLOCATE db_cursor
GO
```

Uses

[dbo].[Address]
[dbo].[AdImport]
[dbo].[Customer]
[dbo].[CreateCustomer]

Scalar-valued Functions

Rendelkezésre állnak segéd függvények az adatgeneráláshoz, és a produktív környezetben használatos függvények is.

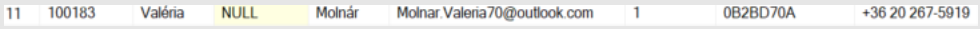
Objects

Name
dbo.AccentConverter
dbo.EmailCheck
dbo.GenerateRandomPhoneNumber
dbo.GenerateWorksheetNumber
dbo.RandomDateTime
dbo.Regex
dbo.ReturnRand
dbo.ReturnRandFromTo

[dbo].[AccentConverter]

Az adatgeneráláshoz szükséges, mivel a random ügyfél feltöltésnél az e-mail címek generáláshoz a neveket is felhasználom, és az ékezetek miatt ez szükséges hozzá.

Pl.



11	100183	Valéria	NULL	Molnár	Molnar.Valeria70@outlook.com	1	0B2BD70A	+36 20 267-5919

Properties

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

Parameters

Name	Data Type	Max Length (Bytes)
@data	varchar(100)	100

SQL Script

```
CREATE   FUNCTION [dbo].[AccentConverter] (@data varchar(100))
RETURNS VARCHAR(100)
AS
BEGIN
SET @data = (SELECT @data collate SQL_Latin1_General_Cp1251_CS_AS)
RETURN @data
END

GO
```

Used By

[dbo].[CreateRandomCustomer]

[dbo].[EmailCheck]

Ez a függvény az e-mail cím ellenőrzéséhez szükséges. .NET Clr segítségével van megvalósítva.

Igazából egy Regex kifejezés kiértékelését végzi el.

A hozzá kapcsolódó anyagok:

https://github.com/atiradeon86/WorkRouter/tree/main/.NET%20CLR
https://github.com/atiradeon86/WorkRouter/blob/main/.NET_CLR.sql

Részlet a CS fájlból:

```
public class Regex4Sql
{
    // Email testing with regex, returns E-mail Address or Bad status
    public static string EmailTesting(string DataString)
    {
        Regex reg =  new Regex("(?:[a-z0-9!#$%&'*+/=?^_`{|}~-]+(?:\\.[a-z0-9!#$%&'*+/=?^_
        bool TestResult = reg.IsMatch(DataString);
        if (TestResult) {
            return DataString;
        }
        string status = "Bad";
        return status;
    }
}
```

A használatához a CS fájlt le kell fordítani, engedélyezni kell a Clr használatát az SQL szerveren a megfelelő jogosultsági szinten.

```
EXEC sp_configure 'clr enabled',1
RECONFIGURE;

EXEC sp_configure 'clr strict security', 0;
RECONFIGURE;
```

Majd létre kell hozni egy Assembly-t hozzá:

```
CREATE ASSEMBLY Regex FROM 'E:\GitHub\vizsgaremek-atiradeon86\Regex.dll'
WITH PERMISSION_SET = SAFE
GO
```

Ezután pedig az Assembly alapján létrehozható egy már az Sql szerver névterében is elérhető függvény.

```
CREATE FUNCTION EmailCheck(@S nvarchar(max)) RETURNS nvarchar(max)
AS EXTERNAL NAME Regex.[Bryan.Regex4Sql].EmailTesting
GO
```

Properties

Property	Value
ANSI Nulls On	False
Quoted Identifier On	False
Assembly	Regex.Bryan.Regex4Sql.EmailTesting

Parameters

Name	Data Type	Max Length (Bytes)
@S	nvarchar(max)	max

SQL Script

```
SET QUOTED_IDENTIFIER OFF
GO
SET ANSI_NULLS OFF
GO
CREATE FUNCTION [dbo].[EmailCheck] (@S [nvarchar] (max))
RETURNS [nvarchar] (max)
WITH EXECUTE AS CALLER
EXTERNAL NAME [Regex].[Bryan.Regex4Sql].[EmailTesting]
GO
```

Uses

[Regex]

Used By

[dbo].[CreateCustomer]

[dbo].[GenerateRandomPhoneNumber]

Az adatgeneráláshoz szükséges, random magyar formátumú számok előállítására használható.

Properties

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

SQL Script

```
-- Stored Procedure GenerateRandomPhoneNumber

CREATE   FUNCTION [dbo].[GenerateRandomPhoneNumber]()
RETURNS VARCHAR(20)
AS
BEGIN
    DECLARE @prefix VARCHAR(4)
    DECLARE @number VARCHAR(7)

    SELECT TOP 1 @prefix = prefix
    FROM (VALUES ('20'), ('30'), ('70')) AS prefixes(prefix)
    ORDER BY ( (SELECT [NewId] FROM dbo.NewID))

    SET @number = ''
    WHILE LEN(@number) < 7
    BEGIN
        SET @number = @number + CAST(FLOOR(dbo.ReturnRand() * 10) AS VARCHAR(1))
    END

    RETURN CONCAT('+36', ' ', @prefix, ' ', SUBSTRING(@number, 1, 3), '-',
SUBSTRING(@number, 4, 2), SUBSTRING(@number, 6, 2))
END

GO
```

Uses

[dbo].[NewID]
[dbo].[ReturnRand]

Used By

[dbo].[CreateRandomCustomer]

[dbo].[GenerateWorksheetNumber]

A munkalapok azonosítása alapból egy INT típusú mezővel történik a sebesség miatt, viszont tárolásra kerül egy munkalapszám is hozzá, az adott országnak megfelelően.

PL. WS-HU000001

Így szükség van a következő munkalap számára új felvételkor.

Pl. `SELECT dbo.GenerateWorksheetNumber('WS-HU')`

	(No column name)
1	WS-HU069796

Properties

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

Parameters

Name	Data Type	Max Length (Bytes)
@prefix	varchar(5)	5

SQL Script

```
CREATE   FUNCTION [dbo].[GenerateWorksheetNumber] (@prefix VARCHAR(5))
RETURNS VARCHAR(20)
AS
BEGIN
    DECLARE @counter INT
    SELECT @counter = MAX(CAST(RIGHT(WorksheetNumber, LEN(WorksheetNumber) - LEN(@prefix))
AS INT))
    FROM dbo.Worksheet
    WHERE LEFT(WorksheetNumber, LEN(@prefix)) = @prefix

    IF @counter IS NULL
        SET @counter = 1
    ELSE
        SET @counter = @counter + 1

    RETURN @prefix + RIGHT('000000' + CAST(@counter AS VARCHAR(6)), 6)
END

GO
```

Uses

[dbo].[Worksheet]

Used By

[dbo].[CreateRandomWorksheet]
[dbo].[CreateWorksheet]

[dbo].[RandomDateTime]

Az adatgeneráláshoz szükséges.

Properties

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

Parameters

Name	Data Type	Max Length (Bytes)
@FromDate	datetime	8
@ToDate	datetime	8

SQL Script

```
-- Create RandomDateTime Function

CREATE   FUNCTION [dbo].[RandomDateTime] (@FromDate DATETIME,@ToDate DATETIME)
RETURNS datetime
AS
BEGIN
    DECLARE @RadomizedDateTime DATETIME
    DECLARE @Seconds INT = DATEDIFF(SECOND, @FromDate, @ToDate)
    DECLARE @Random INT = ROUND(((@Seconds-1) * dbo.ReturnRand()), 0)
    SET @RadomizedDateTime = (SELECT DATEADD(SECOND, @Random, @FromDate))

    RETURN(@RadomizedDateTime)
END

-- Stored Procedure AddRandomWorkToWorksheet ( In this case i need the work completion time.
In base case the CompletionTime is the actual SYSDATETIME() )
GO
```

Uses

[dbo].[ReturnRand]

Used By

[dbo].[CreateRandomWorksheet]

[dbo].[Regex]

A korábban már ismertetett EmailCheck-hez hasonlóan szintén .NET Clr felhasználálsval került beépítésre. Az EmailCheck-nél linkelt oldalon megtekinthető a forrása.

A különbség az, hogy itt bármilyen Regex kifejezés használható, nincs beégetve fixen az e-mail ellenőrzésre használt Regex, ezáltal univerzálisan felhasználható.

Properties

Property	Value
ANSI Nulls On	False
Quoted Identifier On	False
Assembly	Regex.Bryan.UniversalRegex4Sql.Regex

Parameters

Name	Data Type	Max Length (Bytes)
@RegEx	nvarchar(max)	max
@S	nvarchar(max)	max

SQL Script

```
SET QUOTED_IDENTIFIER OFF
GO
SET ANSI_NULLS OFF
GO
CREATE FUNCTION [dbo].[Regex] (@RegEx [nvarchar] (max), @S [nvarchar] (max))
RETURNS [nvarchar] (max)
WITH EXECUTE AS CALLER
EXTERNAL NAME [Regex].[Bryan.UniversalRegex4Sql].[Regex]
GO
```

Uses

[Regex]

[dbo].[ReturnRand]

Az adatgeneráláshoz szükséges.

Properties

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

SQL Script

```
CREATE   FUNCTION [dbo].[ReturnRand]()
RETURNS REAL
AS
BEGIN
    DECLARE @R REAL
    SET @R = (SELECT rRand FROM vRand)
    return @R
END

GO
```

Uses

[dbo].[vRand]

Used By

[dbo].[GenerateRandomPhoneNumber]
[dbo].[RandomDateTime]
[dbo].[ReturnRandFromTo]

[dbo].[ReturnRandFromTo]

Az adatgeneráláshoz szükséges.

Properties

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

Parameters

Name	Data Type	Max Length (Bytes)
@From	int	4
@To	int	4

SQL Script

```
CREATE   FUNCTION [dbo].[ReturnRandFromTo] (@From int, @To int)
RETURNS INT
AS
BEGIN
    DECLARE @RandInt int
    SET @RandInt = (SELECT FLOOR(dbo.ReturnRand() * (@To-@From + 1)) + @From)
RETURN (@RandInt)
END

-- SELECT dbo.ReturnRandFromTo(1,5)


GO
```

Uses

[dbo].[ReturnRand]

Used By

[dbo].[CreateRandomCustomer]
[dbo].[CreateRandomWorksheet]

Assemblies

Objects

Name
dbo.Regex

[Regex]

Properties

Property	Value
Visibility	On
Permission	SAFE
Owner	dbo

Method Signatures

.NET Version v4.0.30319
using "System"

```
class Bryan.Regex4Sql : System.Object
{
   String EmailTesting(String DataString);
   Boolean Equals(Object obj);
   Int32 GetHashCode();
   Type GetType();
   String ToString();
}
class Bryan.UniversalRegex4Sql : System.Object
{
   String Regex(String DataString , String pattern);
   Boolean Equals(Object obj);
   Int32 GetHashCode();
   Type GetType();
   String ToString();
}
```

Related Files

Attribute	Value
File	Regex.dll
Original File name	Regex
Length	4608

SQL Script

```
--Assembly regex, version=0.0.0.0, culture=neutral, publickeytoken=null,
processorarchitecture=msil
CREATE ASSEMBLY [Regex]
AUTHORIZATION [dbo]
FROM
0x4d5a90000300000004000000ffff0000b8000000000000004000000000000000000000000000000000000000
0000000000000000000000000000000800000000e1fba0e00b409cd21b8014ccd21546869732070726f6772616d20
63616e6e6f742062652072756e20696e20444f53206d6f64652e0d0d0a2400000000000000\
```

```
504500004c010300da3245640000000000000000e00002210b010b00000a000000060000000000000006e2800000020
00000040000000000000100020000000002000004000000000000000040000000000000000080000000020000000000000
030040850000100000100000000001000001000000000000001000000000000000000000000\

202800004b000000000400000980200000000000000000000000000000000000000006000000c000000000000000000
000000000000000000000000000000000000000000000000000000000000000000000000000000000000000200000
080000000000000000000000082000004800000000000000000000002e74657874000000\

740800000020000000a000000020000000000000000000000000000000200000602e727372630000000980200000040
000000040000000c000000000000000000000000000000400000402e72656c6f6300000c0000000060000000020000
001000000000000000000000000000400000420000000000000000000000000000000\

502800000000000048000000002000500f42000002c070000010000000000000000000000000000000000000000000
0000000000000000000000000000000000000000000000000000000000000000133002002f00000001000011
00720100000707303000000a0a06026f0400000a0b0716fe01130411042d0500020d2b0a72\

580300700c080d2b00092a1e02280500000a2a00133003004a0000000200001100037303000000a0a72600300700b
06026f0600000a0c160d2b19000708096f0700000a6f0800000a280900000a0b000917580d09086f0a00000afe04
130511052dd80713042b0011042a1e02280500000a2a000042534a4201000100000000000\

0c00000076342e302e33303331390000000005006c0000007c010000237e0000e80100005801000023537472696e
67730000000004003000064030000235553000a40600001000000023475549440000000b40600007800000023426c6f
620000000000000000020000014715020009000000000fa25330016000001000000080000000\

030000000400000000300000000a0000000200000000200000001000000002000000000000a00010000000000006004700
400006009a007a000600ba007a000a006100de000a000501de000a001d01de000a002c01de0006003e0140000000
0000010000000000001000100010010001400 1e0005000100010001001000 24001e000500\

01000300502000000000096004e000a0001008b20000000000086185b000f000200942000000000009600610013000200
ea20000000000086185b000f0004000000001006700000000100670000000200720011005b00190019005b000f002100
5b001e002100fd00230009005b000f0021001501310029002301370039003401 3d004100\

4501130029004c0141002e000b0050002e00130059002800450004800000000000000000000000000000000d800
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WITH PERMISSION_SET=SAFE
GO
```

Used By

[dbo].[EmailCheck]
[dbo].[Regex]

Users

A különböző jogosultsági szintek kezeléséhez.

Objects

Name
Client
ERPConnection
WorkrouterAdmin

Client

Talán ez a legérdekesebb. Alapól semmilyen jogkörrel nem rendelkezik. Csatlakozni tud, de sem táblákhoz, sem tárolt eljárások futtatásához nem fér hozzá alapból.

Egy Application Role segítségével, viszont az App sémában lévő tárolt eljárások futtatására jogosult lesz.

Példa a használatára:

```
$SqlServer = "BRYAN-Work\BRYAN"
    $DB_Name = "Workrouter"
    $DB_username = "Client"
    $DB_password = "Demo1234"
    $query = "
    EXEC sys.sp_setapprole 'ClientAppRole', 'Demo1234'
    EXEC app.GetWorksByWorksheetNumber @Worksheetnumber ='WS-HU000050'
    EXEC app.GetWorksByWorksheetNumberDE @Worksheetnumber ='WS-HU000050'
    EXEC app.GetWorksByWorksheetNumberEN @Worksheetnumber ='WS-HU000050'
    "

    $data = Invoke-Sqlcmd -Query $query -Username $DB_username -Password $DB_password -ServerInstance $SQLServer -Database $DB_Name

echo $data
```

```
Parancssor - powershell
PS E:\GitHub\vizsgaremek-atiradeon86> .\ClientAppRole.ps1


WorksheetNumber   : WS-HU000050
Worker            : István  Kiss
WorkName          : GPON Internet bekötés -1 Gigabit/s
Price             : 10000,0000
Quantity          : 1
SubTotal          : 10000,0000
WorkerDescription : Valami megjegyzés ..

WorksheetNumber   : WS-HU000050
Worker            : István  Kiss
WorkName          : GPON Internet installation -1 Gigabit/s
Price             : 40,0000
Quantity          : 1
SubTotal          : 40,0000
WorkerDescription : Valami megjegyzés ..

WorksheetNumber   : WS-HU000050
Worker            : István  Kiss
WorkName          : GPON Internet Installation -1 Gigabit/s
Price             : 40,0000
Quantity          : 1
SubTotal          : 40,0000
WorkerDescription : Valami megjegyzés ..
```

Properties

Property	Value
Type	SqlUser
Login Name	Client
Default Schema	app

Database Level Permissions

Type	Action
CONNECT	Grant

SQL Script

```
CREATE USER [Client] FOR LOGIN [Client] WITH DEFAULT_SCHEMA=[app]
GO
```

Uses

app

ERPConnection

Adatszinkronizáláshoz lett beépítve, egy esetleges külső ERP integráció számára.

Properties

Property	Value
Type	SqlUser
Login Name	ERPConnection
Default Schema	dbo

Database Level Permissions

Type	Action
CONNECT	Grant

SQL Script

```
CREATE USER [ERPConnection] FOR LOGIN [ERPConnection]
GO
```

WorkrouterAdmin

Egy admin felhasználói hozzáférés.

Properties

Property	Value
Type	SqlUser
Login Name	WorkrouterAdmin
Default Schema	dbo

Database Level Permissions

Type	Action
CONNECT	Grant

SQL Script

```
CREATE USER [WorkrouterAdmin] FOR LOGIN [WorkrouterAdmin]
GO
```

Database Roles

Objects

Name
AssetAdmin
WorkAdmin
WorkRouter

AssetAdmin

Az Asset-ek kezeléséhez szükséges jogkörrel rendelkezik.

Properties

Property	Value
Owner	dbo

SQL Script

```
CREATE ROLE [AssetAdmin]
AUTHORIZATION [dbo]
GO
```

WorkAdmin

Az munkák kezeléséhez szükséges jogkörrel rendelkezik.

Properties

Property	Value
Owner	dbo

SQL Script

```
CREATE ROLE [WorkAdmin]
AUTHORIZATION [dbo]
GO
```

WorkRouter

A munkák kiosztásához szükséges jogkörrel rendelkezik.

Properties

Property	Value
Owner	dbo

SQL Script

```
CREATE ROLE [WorkRouter]
AUTHORIZATION [dbo]
GO
```

Application Roles

Objects

Name
ClientAppRole

ClientAppRole

A Client-nél bemutatott AppRole.

Properties

Property	Value
Default Schema	app

SQL Script

```
CREATE APPLICATION ROLE [ClientAppRole] WITH PASSWORD = 'p@ssw0rd', DEFAULT_SCHEMA = [app]
GO
```

Uses

app

Schemas

Objects

Name
app

app

Egy séma a kliens program számára elérhető tárolt eljárásokhoz.

Properties

Property	Value
Owner	ClientAppRole

SQL Script

```
CREATE SCHEMA [app]
AUTHORIZATION [ClientAppRole]
GO
```

Used By

[app].[GetWorksByWorksheetNumber]
[app].[GetWorksByWorksheetNumberDE]
[app].[GetWorksByWorksheetNumberEN]
Client
ClientAppRole

Mentési stratégia

Egy produktív környezetben, amennyiben megfelelő SQL Server licensz elérhető a következő mentési modellt valósítanám meg:

Napi mentés

Teljes mentés minden nap este 23:00-kor.

Óránkénti mentés

Reggel 6 és este 8 óra között óránként egy differenciális tranzakció log kerülne tárolásra. Az adatvesztés minimalizálásnak érdekében.

Az adatok tárolását elkülönítve oldanám meg. - Erre több nagyon szuper lehetősége is van.

Pl. szalagos egységek, eltérő régiókban történő Azure mentési megoldások is elérhetők, a rendelkezésre álló anyagi források, és az elvárt SLA-tól függően.

Általános szabály, hogy az adatok legalább két különböző helyen redundánsan legyenek elérhetőek, és hetente legalább egyszer szükséges egy helyreállítási teszt elvégzése is.

Limitációk (Sql Server Express**)**

Az ingyenesen SQL Server változtatok sajnos sok korláttal rendelkeznek.

A mentéssel kapcsoltban a legnagyobb hiányosság, hogy *nem elérhető az* **SQL Server Agent**, és az adatbázis kezelése csak Full recovery modell-el valósítható meg.

Így nincs más lehetőségünk, mint külső megoldásokat alkalmazni az időzítésre. Pl. írhatunk Powershell Scripteket, amiket aztán beütemezhetünk a Task Scheduler segítségével.

Linux esetén pedig bash script, és crontab lehet a megfelelő megoldás.

Záró gondolatok

Az adatbázisban található adatok a korábban már bemutatott függvények, nézetek, tárolt eljárások segítségével randomizálva készültek.

A CSV fájlok tartalmai publikusan elérhetőek, semmilyen jogvédelem alatt nem állnak, köszhasznú adatok.

Sokat gondolkoztam rajta, hogy tartalmazza-e a dokumentáció ezeket az adatfelöltős részeket, és arra a következtetésre jutottam, hogy a projektmunka részét képezik, mivel nélkülük nem lett volna lehetőség a megtervezett adatbázis hatékonyságának, teljesítményének a tesztelésére.

Egy hasonló méretű projekten általában több különböző csapat dolgozik jó pár hónapon, esetleg éveken keresztűl.

Ez a dokumentáció idő hiányában, és a terjedelme miatt nagy részben egy trial verziós adatgenerátor programmal készült.

https://www.red-gate.com/products/sql-development/sql-doc/

Minden komolyabb elemet próbáltam részletezni, bemutatni, amit fontosnak gondoltam.

Nagyon sok további ötlet, terv volt a projektmunka megvalósítása során, amik a rendelkezésemre álló idő miatt sajnos tervezési fázisban maradtak, viszont az utolsó pillanatokban beépített LDAP Sync is azt mutatja számomra, hogy ez egy messze nem tökéletes, de véleményem szerint egy jól használható alap.

A továbbiakban mindenképpen tervezem a továbbfejlesztését, optimalizálását, és egy webes keretrendszerben történő megvalósítását.

A legfontosabb rész, amire sajnos nem maradt idő az maga a számlázás, számlakiállítás, vagy egy adott szolgáltatónak az adatok átadása a számlák kiállítására.