INSTITUTO SUPERIOR DE ENGENHARIA DO PORTO
MSc in Informatics Engineering

Armazéns de Dados

2.1 Create the SQL scripts to create the dimensional model tables that have resulted

from Exercise 1 of Practical classes, according to the following information:

DimItem Table			
Attribute/Field	**Data Type**	**Width**	**Null**
ItemKey (PK)	int – identity(1,1)	-	No
ItemID	char	11	No
ItemDescription	nvarchar	50	No
CategDescription	nvarchar	50	No
SubCategDescrip	nvarchar	50	No
BrandDescription	nvarchar	50	No
UpmarketFlag	char	1	No
EffectiveDate	datetime	-	No
ExpiredDate	datetime	-	Yes
IsCurrent	nvarchar	3	No

DimCard Table			
Attribute/Field	**Data Type**	**Width**	**Null**
CardKey (PK)	int - identity(1,1)	-	No
CardID	char	11	No
City	nvarchar	50	No
Region	nvarchar	50	No
PostalCode	nvarchar	10	No
CardStartDateKey	int	-	No
Gender	nvarchar	6	No
DateOfBirthKey	int	-	No
MaritalStatus	nvarchar	10	No
NumChildren	tinyint	-	No
YoungestChildren	tinyint	-	No
EffectiveDate	datetime	-	No
ExpiredDate	datetime	-	Yes
IsCurrent	nvarchar	3	No

DimPaymentMethod Table			
Attribute/Field	**Data Type**	**Width**	**Null**
PaymentMethodKey (PK)	int - identity(1,1)	-	No
PaymentMethod	char	2	No
PaymentMethodDescription	nvarchar	20	Yes

DimStore Table			
Attribute/Field	**Data Type**	**Width**	**Null**
StoreKey (PK)	int - identity(1,1)	-	No
StoreID	char	5	No
StoreName	nvarchar	20	Yes

DimDate Table

Attribute/Field	Data Type	Width	Null
DateKey (PK)	int - identity(1,1)	-	No
FullDate	datetime	-	No
Year	int	-	No
Semester	tinyint	-	No
Quarter	tinyint	-	No
Month	tinyint	-	No
MonthName	nvarchar	10	No
Week	tinyint	-	No
DayNumberOfYear	int	-	No
DayNumberOfMonth	tinyint	-	No
DayNumberOfWeek	tinyint	-	No
DayOfWeek	nvarchar	10	No
Weekend	nvarchar	3	No

DimTime Table

Attribute/Field	Data Type	Width	Null
TimeKey (PK)	int - identity(1,1)	-	No
FullTime	time	-	No
FullTime_int	int	-	No
Hour	tinyint	-	No
Minute	tinyint	-	No
Second	Tinyint	-	No
Period	nvarchar	10	No
LunchTime	nvarchar	3	No
DinnerTime	nvarchar	3	No

FactSales Table

Attribute/Field	Data Type	Width	Null
DateKey (PK)	int	-	No
TimeKey (PK)	int	-	No
CardKey (PK)	int	-	No
ItemKey (PK)	int	-	No
StoreKey (PK)	int	-	No
PaymentMethodKey	int	-	No
TransactionID	char	9	No
Quant	tinyint	-	No
Amount	money	-	No
TotalAmount	money	-	No

2.2 Using the proper components, create a Microsoft SQL Server Integration Services
ETL Package in order to:

- Create the databases (*data mart* and *staging area*)

- Create the temporary tables (*staging tables*) using the provided scripts

- Create the data mart tables (*dimension tables* and *fact table*) using the scripts
created in 2.1

- Extract the data into the temporary tables (*staging tables*)