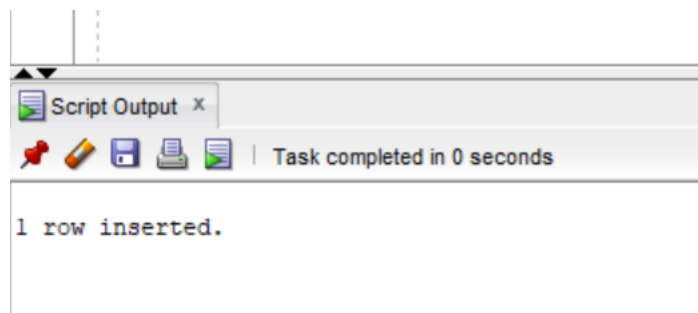# Tests for the member dimension and the fact flight

1. **Test of the member dimension:** We made a test that demonstrates that new, deleted and changed rows in the table member are correctly type-2 updated in the members dimension.

First, we create a **new member** with initials "dwhg" and name "data" into the "taMember":

```
insert into taMember (MemberNo, Initials, name, address, zipcode,
  dateBorn, dateJoined, dateLeft, ownsPlaneReg, statusStudent, statusPilot,
  statusAsCat, statusFullCat, sex, club )
values(    510 , 'dwhg' , 'data ' , 'Horsens' ,  8700 ,
  to_date('1991-07-13','YYYY-MM-DD') , to_date('2013-07-26','YYYY-MM-DD') ,
  to_date('2016-01-28','YYYY-MM-DD') , '   ' , 'N' , 'N' , 'N' , 'Y' , 'F' , 'Vejle' );
```


Script Output x

Task completed in 0 seconds

```
1 row inserted.
```

Then, we run the ETL for d_member:

```
EXTRACTTIME
-----------------------------------
Extract Members at: 2018-05-30 13:51


'ROWCOUNTSBEFORE:'
--------------------------------------------------------------------
Row counts before:
Rows in extract table before (should be zero)0
Rows in Members table 508
Rows in Members table (yesterday copy) 507
```

And here we can see that the dimension member was correctly updated with the new member

ID	MEMBER_NO	INITIALS	NAME	SEX	ZIP_CODE	ADDRESS	DATE_BORN	STATUS	VALID_FROM	VALID_TO
1	1017	510	dwhg	data	F		8700	Horsens	13-JUL-91	Fullcat	30-MAY-18	31-DEC-99
2	1016	507	FIIV	Filippa Iversen...	F		5463	Ny Snaregade, Harndrup	13-JUL-91	Fullcat	30-MAY-18	31-DEC-99
3	1015	506	KAER	Karla Eriksen, Jr.	F		5400	Ny Kobmagergade, Bogense	08-FEB-74	Pilot	30-MAY-18	31-DEC-99

In the second test, we **change** the name of the member that we created before:

```
update tamember
set name = 'warehousing'
  where memberno = 510;
```

We run the ETL again:

```
-----------------------------------
Extract Members at: 2018-05-30 13:54


'ROWCOUNTSBEFORE:'
-----------------------------------------------
Row counts before:
Rows in extract table before (should be zero) 0
Rows in Members table 508
Rows in Members table (yesterday copy) 508
```

And we can see that the table dimension members was correctly updated:

	ID	MEMBER_NO	INITIALS	NAME	SEX	ZIP_CODE	ADDRESS	DATE_BORN	STATUS	VALID_FROM	VALID_TO
1	1018	510	dwhg	warehousing	F	8700	Horsens	13-JUL-91	Fullcat	30-MAY-18	31-DEC-99
2	1017	510	dwhg	data	F	8700	Horsens	13-JUL-91	Fullcat	30-MAY-18	30-MAY-18
3	1016	507	FIIV	Filippa Iversen...	F	5463	Ny Snaregade, Harndrup	13-JUL-91	Fullcat	30-MAY-18	31-DEC-99

For the third test, we **deleted** the member that we created before:

```
delete tamember where MemberNo = 510;
```

We run the ETL:

```
EXTRACTTIME
-----------------------------------
Extract Members at: 2018-05-30 13:57


'ROWCOUNTSBEFORE:'
-----------------------------------------------
Row counts before:
Rows in extract table before (should be zero) 0
Rows in Members table 507
Rows in Members table (yesterday copy) 508
```

Here we can see that the table dimension members correctly updated, because it set the valid_to date for the member deleted to today's date:

	EMBER_NO	INITIALS	NAME	SEX	ZIP_CODE	ADDRESS	DATE_BORN	STATUS	VALID_FROM	VALID_TO
1	510	dwhg	warehousing	F	8700	Horsens	13-JUL-91	Fullcat	30-MAY-18	30-MAY-18
2	510	dwhg	data	F	8700	Horsens	13-JUL-91	Fullcat	30-MAY-18	30-MAY-18

2. **Test of the fact table** that demonstrate the correct insertion of facts for a single-pilot and a two-pilot flight:

First we **inserted 2 new flights**, one with **one pilot**, and the second one with **2 pilots** in the taFlightsSG70.

```
21
22  insert into taFlightsSG70 (launchTime, landingTime, planeRegistration, pilot1Init, pilot2Init,
23  launchAerotow, launchWinch,launchSelfLaunch, cableBreak, CrossCountryKm)  values
24  ( to_date('2018-04-29 11:31', 'YYYY-MM-DD HH24:MI' ) ,  to_date('2018-04-29 17:58', 'YYYY-MM-DD HH24:MI' ) ,
25  'DWH' , 'DIDI' , '    ' , 'Y' , 'N' , 'N' , 'N' ,  464);
26
27
28  insert into taFlightsSG70 (launchTime, landingTime, planeRegistration, pilot1Init, pilot2Init,
29  launchAerotow, launchWinch,launchSelfLaunch, cableBreak, CrossCountryKm)  values
30  ( to_date('2017-06-17 12:02', 'YYYY-MM-DD HH24:MI' ) ,  to_date('2017-06-17 16:04', 'YYYY-MM-DD HH24:MI' )
31  , 'DAM' , 'DADA' , 'MJFF' , 'N' , 'N' , 'Y' , 'N' ,    0);
32
```

We didn't have an extract report for flight to show the result of the rows extracted, but after running the ETL this is the F_FLIGHT dimension, where you can see that the flights were inserted (we have made fake information in the launch_method_id, plane_id and club_id because we didn't populate those tables. The rows inserted are the ones with group_id "15067" and "15068".

	LAUNCH_TIME_ID	LANDING_TIME_ID	LAUNCH_METHOD_ID	PLANE_ID	CLUB_ID	GROUP_ID	DISTANCE	DURATION
1	1	1	-1	0	-1	15068	464	387
2	1	1	-1	0	-1	15067	0	242
3	1	1	-1	0	-1	15066	373	332
4	1	1	-1	0	-1	15065	0	369
5	1	1	-1	0	-1	15064	595	378
6	1	1	-1	0	-1	15063	0	46

And here, we can see the correct insertion of the information into the bridge table, the rows inserted are the ones with group_id "15067" and "15068". The group id is the same for the flight with two pilots and their respective weight is 0.5.

....sql | InsertFakeData.sql × | d_members.sql × | ddl_dim_fact.sql × | dwh | B_MEMBER_FLIGHT × | tables.sql ×

Columns | Data | Constraints | Grants | Statistics | Triggers | Flashback | Dependencies | Details | Partitions | Indexes | SQL

Sort.. | Filter:

	GROU...	PILOT_ID	PILOT_AGE_ID	WEIGHT
1	15068	2	-1	1
2	15067	1019	-1	0.5
3	15067	2	-1	0.5
4	15066	162	-1	1
5	15065	445	-1	1
6	15064	422	-1	1
7	15063	236	-1	1
8	15062	988	-1	1
9	15061	61	-1	0.5
10	15061	1007	-1	0.5