



Iceni Newsletter October 2023

Coronavirus Impact Covid-19. We are continuing to hold our meetings online as this seems to suit everyone and saves travelling during the dark Winter months.

I hope you are all keeping safe and well and will be able to join us online.

If you wish to join us just follow the link or paste into your browser:-

<https://meet.jit.si/IceniComputerClubMeeting> and follow instructions to allow camera and microphone access. We have found some problems with screen sharing on the Mac if using Firefox, but using Safari or Chrome is ok as is using Windows.

There is nothing to download or install. We still meet on the third Wednesday of the month at 7:30 p.m. via Jitsi.org Video conferencing.

Our Next Meeting Wednesday 18th October 2023

3D printing review

Gareth and I are not sure yet what we will be presenting here . It may be a surprise evening. Has anyone else purchased a 3D printer? They are very versatile at producing all sorts of components.

Our Last Meeting Wednesday September 20th 2023

Maria DB and MySQL by Paul et al.

This was a good introduction to the use of Maria DB by Paul and was presented in a very clear way. He began by showing how to use Structured Query Language (SQL) and gave a resume of the history behind it.

Originally written by Michael Widelius called MySQL became popular with users of the www, named after his eldest daughter. later bought by

SUN and taking him on as an employee. Subsequently ORACLE bought SUN and Michael left ORACLE as he did not agree with the direction they were taking it. ORACLE later released RDBMS, free for personal use and Michael forked it to become MariaDB named after his youngest Daughter. MariaDB may be downloaded and installed. Initially you must create a User.

Paul had a docker container in which he could share MariaDB

Securing mariadb

```
sudo mysql_secure_installation
```

requests

runs a script which asks for a password – initially blank and then set root password for Unix_socket which ensures nobody can log in without correct authorisation. Then later asked for switch to Unix socket authentication can answer no.f or security. Add a new password and after just take defaults removing anonymous users etc.

Connecting to mariadb

just type mariadb at prompt.

```
mariadb -u <user> -p <database> mysql -u <user> -p <database>
```

Here Paul created a user called Paul with all privileges. Service mariadb with either mysql or mariadb. There a db called mysql to which you can connect. Has info for system itself. You can use show tables which produce a long list. The first thing is to create an admin user.

Root prompt: -# fg

mariadb

```
MariaDB[mysql] > source sql1.sql
```

Query OK, 0 rows affected (0.107 sec)

Query OK, 0 rows affected (0.016 sec)

Query OK, 0 rows affected (0.001 sec)

Which is ok.

Create a user – an ADMIN user initially.

```
CREATE USER '<username>'@'l<host>' IDENTIFIED BY '<password>';
GRANT <privilege,privilege,...> on *.* TO '<username>'@'l<host>' WITH GRANT OPTION;
FLUSH PRIVILEGES;
```

Having done this you need to create a DB for your own purposes.

Create a database

```
create database <database name>; <database name> = demo
```

Connect to database

```
connect <database name>; <database name> = demo
```

Show a list of tables

```
show tables;
```

MariaDB [demo] show tables;

Empty set

As we have only just created the db there are no tables.

Create a table

```
create table <table name>
(<column> I<datatype> <not null?,
```

```
....,
```

```
...., );
```

Paul copied an existing table called 'emp', employee, by using

```
# cat sql2.sql
```

```
create table emp
```

```
    (empno int(4) not null,
```

```
    ename varchar(10),
```

```
    job varchar(9),
```

```
    mgr int(4),
```

```
    hiredate date,
```

```
    sal decimal(7, 2),
```

```
    comm decimal (7, 2),
```

```
    deptno int(2));
```

Now tables command will show

emp – one row in set

Data types.

For a list of data types see <https://mariadb.com/kb/en/data-types/>

Retrieving data from a table

```
select * from <table name>;
```

Can then type

root # fg *which stands for foreground*

```
mysql -u paul -p mysql
```

```
source sql2.sql
```

Query ok , 0 rows affected (0.265 sec) *since there is no data yet.*

A NULL means nothing , not zero.

Paul used some of the trial data within mariaDB for tables “bonus”, “dept”, and “salgrade” to save time and used the

select * from dept; “*” means all fields. It showed 4 fields for accounting, research, sales, operations.

Insert data into a table

```
insert into <table name> values (<value> , <value> ...);
```

Creating a view

```
CREATE VIEW <view name> AS <select statement>;
```

To relate the various tables we set up a view.

```
Cat sql5.sql
```

```
CREATE VIEW emp_list AS
```

```
Select e.empno AS employee,
```

```
       e.ename AS name,
```

e.job AS occupation,
m.ename AS manager,
s.grade AS "pay grade",
d.name AS department,
d.loc AS location

FROM (emp e LEFT JOIN emp m ON ((e.mgr = m.empno))),
dept d,
salgrade s

WHERE ((e.deptno = d.deptno)

AND ((e.sal >= s.losal) AND (e.sal <= s.hisal)));

losal = lowest salary and hisal = highest salary

running it

fg

mysql -u paul -p mysql

source sql5.sql

select * from emp_list

Show tables

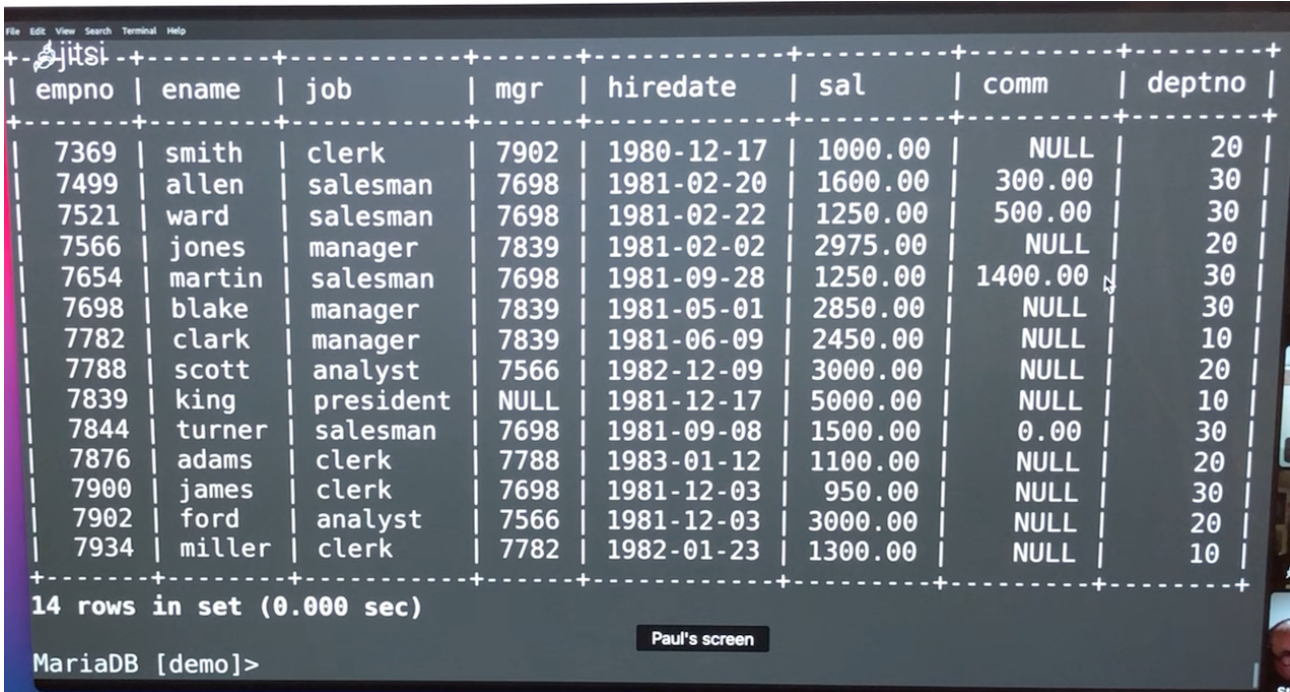
+-----+

Tables_in_demo

	bonus	
	dept	
	emp	
	emp_list	
	salgrade	

+-----+

Select * FROM emp_list now produced 14 entries having combined 4 tables into one.



empno	ename	job	mgr	hiredate	sal	comm	deptno
7369	smith	clerk	7902	1980-12-17	1000.00	NULL	20
7499	allen	salesman	7698	1981-02-20	1600.00	300.00	30
7521	ward	salesman	7698	1981-02-22	1250.00	500.00	30
7566	jones	manager	7839	1981-02-02	2975.00	NULL	20
7654	martin	salesman	7698	1981-09-28	1250.00	1400.00	30
7698	blake	manager	7839	1981-05-01	2850.00	NULL	30
7782	clark	manager	7839	1981-06-09	2450.00	NULL	10
7788	scott	analyst	7566	1982-12-09	3000.00	NULL	20
7839	king	president	NULL	1981-12-17	5000.00	NULL	10
7844	turner	salesman	7698	1981-09-08	1500.00	0.00	30
7876	adams	clerk	7788	1983-01-12	1100.00	NULL	20
7900	james	clerk	7698	1981-12-03	950.00	NULL	30
7902	ford	analyst	7566	1981-12-03	3000.00	NULL	20
7934	milller	clerk	7782	1982-01-23	1300.00	NULL	10

14 rows in set (0.000 sec)

MariaDB [demo]>

Starting a transaction

start transaction; <statements>; commit;

Updating a record

update <table name> set <column> = <value> where <column> = <value>;

Deleting a record

delete from <table name> where <column> = <value>;

Problems

There are problems with updating tables since if someone increases a salary .

Update emp set sal + 100 where empno = 7369

1 row affected.

Someone else may think the job is not done and repeat. This would be a repeat transaction.

Can instead do

start transaction

Update emp set sal + 100 where empno = 7369

come out and go in again and try the repeat transaction and second attempt will now time out.

Other features of MariaDB. It does not scale well and MySQL is not good on multiple processors.

Normalisation

Paul needed to ensure integrity rather than content of the data in his job.

Normalisation means not having data duplicated across tables. It should only appear once. If it is incorrect then it will be wrong everywhere. Once corrected it will then be correct everywhere.

Thank you Paul for this talk and for your notes about it.

Time to brush up on our sql [Ed.]

Other topics

Duncan was still having problems with his Digikam set up when upgrading from version 8 to 9. It should bring up a panel with various commands in it but it comes up blank. He has tried several ways to correct this including trying to reload the software, which states it is already loaded. He tried URPMI command which should replace a package and tried creating a new user. He gets an error loading a QML file in KDE Plasma which should update Digikam at the same time. He also had a problem with Digikam not retaining identifying captions on people in photos. Some how it allows him to put a name to a face but it is not saved when he returns to it later. It sometimes works however and in this case the name is entered into the EXIF data. Steve thought it was related to updates in KDE Libraries. He thought it was something in Duncan's home directory. He thought there could be a reset file for the panel. This all sounds very complicated [Ed.]

Chat:

Related to the recent Air Traffic Control problem mentioned by Peter.

Gareth says:<https://www.independent.co.uk/travel/news-and-advice/air-traffic-control-failure-what-happened-b2406337.html>

Steve Mynott says: for Duncan's problem refer to:-
.config/plasma-org.kde.plasma.desktop-appletsrc
using CTRL ALT F2.

ICENI Future programme

ICENI Future Programme 2023/2024 2023	Title	Presenter
20 September	Maria DB and MySQL	Paul et al
18 October	3D printing update	
15 November	Stills and Video Evening	All
20 December	Party and Gadgets Evening	All
2024		
17 January	Social Evening Venue TBA	
21 February	Open for Steve and Sue	
20 March	Mac Evening IOS updates	
17 April	Raspberry Pi and Arduino etc.	All
15 May	AGM + Extras TBA	All
19 June	Open	

This programme is open to changes as the year unfolds.

**MEETINGS WILL NOW BE HELD ONLINE BUT STILL ON THE THIRD WEDNESDAY
UNTIL FURTHER NOTICE UNLESS OTHERWISE STATED..**

Special Notice - Insurance

"ICENI does not have any Insurance cover for computers or other equipment so please be advised that you bring machines to the club at your own risk."

However many household insurance policies will include cover away from home often with no increase in premium. (Ed.)

Our Website and Email and Jitsi meetings

Our website URL is

<http://icenicomputerclub.org.uk>

Email to: iceni@woolridge.org.uk

The website is where you will find copies of the Newsletter from Previous years and also where you will find our Committee Members and future programme.

I am open to suggestions on what people would like to have included in the website.

JITSI Meetings

I am repeating this here from the top of the document.

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End