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Author: Dr Georgina R Toye

Address: Department of Biological Sciences

School of Science

Birkbeck College

University of London

MySQL QUERIES

Search queries below refer to arguments db_input, db_query and db_output in the database API function:

```
def db_request(db_input, db_query, db_output)
```

Hypothetical outputs are shown.

KEY:

===

NA = combination not allowed

string = db_query entered as a search string

STRING SEARCH QUERIES

ACCESSION NUMBER

```
(1,'string',1)

SELECT acc_num FROM gb_main WHERE acc_num = 'string';

db_result = [['AF485254']]

(2,'string',1) OR

(3,'string',1) OR

(4,'string',1)

SELECT acc_num FROM gb_main WHERE chrom_loc LIKE '%string%';

db_result = [['AF485254','U49845','Z27420']]
```

CHROMOSOMAL LOCATION

```
(1,'string',2)

SELECT chrom_loc, acc_num FROM gb_main WHERE acc_num = 'string';

db_result = [['18q24.3'],

              ['U55184']]

(2,'string',2) OR

(3,'string',2) OR

(4,'string',2)

SELECT chrom_loc, acc_num FROM gb_main WHERE chrom_loc LIKE '%string%';

db_result = [['18q24.3','18q24','18q24.6'],

              ['AF485254','U49845','Z27420']]
```

GENE IDENTITY

```
(1,'string',3)

SELECT gene_id, acc_num FROM gb_main WHERE acc_num = 'string';

db_result = [['NPC1'],

              ['U11424']]

(2,'string',3) OR

(3,'string',3) OR

(4,'string',3)

SELECT gene_id, acc_num FROM gb_main WHERE chrom_loc LIKE '%string%';

db_result = [['NPC1','NPC1R','pseudoNPC1a'],

              ['AF485254','U49845','Z27420']]
```

PROTEIN PRODUCT

```
(1,'string',4)

SELECT prot_name, acc_num FROM gb_main WHERE acc_num = 'string';

db_result = [['desmoglein type 1'],

              ['AJ001716']]

(2,'string',4) OR

(3,'string',4) OR

(4,'string',4)

SELECT prot_name, acc_no FROM gb_main WHERE chrom_loc LIKE '%string%';

db_result = [['desmoglein 1','desmoglein 4','myelin'],

              ['AF485254','U49845','Z27420']]
```

LOCUS DNA SEQUENCE

```
(1,'string',5)

SELECT locus_seq, acc_num FROM gb_seq WHERE acc_num = 'string';

db_result = [['gtaactac'],

              ['AF485254']]

(2,'string',5) OR

(3,'string',5) OR

(4,'string',5)

SELECT locus_seq,gb_main.acc_num FROM gb_main

INNER JOIN gb_seq ON gb_main.acc_num = gb_seq.acc_num

WHERE chrom_loc LIKE '%string%';

db_result = [['gtaactac','gccagtttt','agtatgtc'],

              ['AF485254','U49845','Z27420']]
```

CDS MAP

```
(1,'string',6)

SELECT cds_map,start_cod,gene_span,gb_main.acc_num

FROM gb_main INNER JOIN gb_cds_map ON gb_main.acc_num = gb_cds_map.acc_num

WHERE gb_main.acc_num = 'string';

db_result = [['179..5187,6619..7050'],

              ['start=3'],

              ['24..8876'],

              ['AF485254']]

(2,'string',6) OR

(3,'string',6) OR

(4,'string',6)
```

```

SELECT cds_map,start_cod,gene_span,gb_main.acc_num
FROM gb_main INNER JOIN gb_cds_map ON gb_main.acc_num = gb_cds_map.acc_num
WHERE chrom_loc LIKE '%string%';

db_result = [['179..5187,6619..7050','64..676,24..8876','NF'],
             ['start=3','start=1','start=2'],/
             ['24..8876','64..676','24..8876'],
             ['AF485254','U49845','Z27420']]

```

LIST, SHORT

```

(1,'string',7)

SELECT acc_num, chrom_loc, gene_id, prot_name
FROM gb_main WHERE acc_num = 'string';

db_result = [['D00596'],
             ['18q24'],
             ['TPMT'],
             ['desmoglein type 1']]

(2,'string',7) OR

(3,'string',7) OR

(4,'string',7)

SELECT acc_num, chrom_loc, gene_id, prot_name
FROM gb_main WHERE chrom_loc LIKE '%string%';

db_result = [['AF485254','U49845','Z27420'],
             ['18q24.3','18q24','18q24.6'],
             ['NPC1','NPC1R','pseudoNPC1a'],
             ['desmoglein 1','desmoglein 4','myelin']]

```

LIST, LONG

```

(1,'string',8)

SELECT m.acc_num, chrom_loc, gene_id, prot_name, locus_seq, cds_map, start_cod, gene_span
FROM gb_main m, gb_seq s, gb_cds_map c
WHERE s.acc_num = m.acc_num AND c.acc_num = m.acc_num AND m.acc_num = 'string';

db_result = [['U11424'],
             ['18q11.2'],
             ['DSG1'],
             ['desmoglein type 1'],
             ['caccttctactatgacctgaggggttgctacatcacccaccac'],
             ['179..5187,6619..7050'],
             ['start=3'],
             ['24..8876']]

```

```

(2,'string',8) OR
(3,'string',8) OR
(4,'string',8)

SELECT m.acc_num, chrom_loc, gene_id, prot_name, locus_seq, cds_map, start_cod, gene_span
FROM gb_main m, gb_seq s, gb_cds_map c
WHERE s.acc_num = m.acc_num AND c.acc_num = m.acc_num AND chrom_loc LIKE '%string%';

db_result = [['D00596','U11424'],
             ['18q24','18q24'],
             ['TPMT','pseudoTPMT'],
             ['desmoglein type 1','desmoglein 4 preproprotein'],
             ['caccacatataacccaatgta','tcttagaaggcaac'],
             ['99..187,300..490,6619..7050','159..1187,1200..5079'],
             ['start=1','start=3'],
             ['22..7953','103,6012']]

```

BROWSE SEARCH QUERIES

ACCESSION NUMBER

```

(1,'B',1)

SELECT acc_num FROM gb_main;

db_result = [['AF485254','AF67554', ..., 'Z27420']]

(2,'B',1)

SELECT chrom_loc, acc_num FROM gb_main;

db_result = [['18q24.3','18q24', ..., '18q24.6'],
             ['AF485254','U49845', ..., 'Z27420']]

(3,'B',1)

SELECT gene_id, acc_num FROM gb_main;

db_result = [['NPC1','NPC1R', ..., 'pseudoNPC1a'],
             ['AF485254','U49845', ..., 'Z27420']]

(4,'B',1)

SELECT prot_name, acc_num FROM gb_main;

db_result = [['desmoglein type 1','desmoglein 4', ..., 'myelin'],
             ['AF485254','U49845', ..., 'Z27420']]

(5,'B',1) NA
(6,'B',1) NA
(7,'B',1) NA
(8,'B',1) NA

```

CHROMOSOMAL LOCATION

```
(1,'B',2)

SELECT acc_num, chrom_loc FROM gb_main;

db_result = [['AF485254','U49845', ..., 'Z27420'],
              ['18q24.3','18q24', ..., '18q24.6']]

(2,'B',2)

SELECT chrom_loc, acc_num FROM gb_main;

db_result = [['18q24.3','18q24', ..., '18q24.6'],
              ['AF485254','U49845', ..., 'Z27420']]

(3,'B',2)

SELECT gene_id, chrom_loc, acc_num FROM gb_main;

db_result = [['NPC1','NPC1R',..., 'pseudoNPC1a'],
              ['18q24.3','18q24', ..., '18q24.6'],
              ['AF485254','U49845', ..., 'Z27420']]

(4,'B',2)

SELECT prot_name, chrom_loc, acc_num FROM gb_main;

db_result = [['desmoglein 1','desmoglein 4',..., 'myelin'],
              ['18q24.3','18q24', ..., '18q24.6'],
              ['AF485254','U49845', ..., 'Z27420']]

(5,'B',2) NA
(6,'B',2) NA
(7,'B',2) NA
(8,'B',2) NA
```

GENE IDENTITY

```
(1,'B',3)

SELECT acc_num, gene_id, FROM gb_main;

db_result = [['AF485254','U49845', ..., 'Z27420'],
              ['NPC1','NPC1R',..., 'pseudoNPC1a']]

(2,'B',3)

SELECT chrom_loc, gene_id, acc_num FROM gb_main;

db_result = [['18q24.3','18q24', ..., '18q24.6'],
              ['NPC1','NPC1R',..., 'pseudoNPC1a'],
              ['AF485254','U49845', ..., 'Z27420']]

(3,'B',3)

SELECT gene_id, acc_num FROM gb_main;

db_result = [['NPC1','NPC1R',..., 'pseudoNPC1a'],
              ['AF485254','U49845', ..., 'Z27420']]
```

```
(4,'B',3)

SELECT prot_name, gene_id, acc_num FROM gb_main;

db_result = [['desmoglein 1','desmoglein 4',...,'myelin'],
              ['NPC1','NPC1R',...,'pseudoNPC1a'],
              ['AF485254','U49845', ...,'Z27420']]

(5,'B',3) NA
(6,'B',3) NA
(7,'B',3) NA
(8,'B',3) NA
```

PROTEIN PRODUCT

```
(1,'B',4)

SELECT acc_num, prot_name FROM gb_main;

db_result = [['desmoglein 1','desmoglein 4',...,'myelin'],
              ['AF485254','U49845', ...,'Z27420']]

(2,'B',4)

SELECT chrom_loc, prot_name, acc_no FROM gb_main;

db_result = [['18q24.3','18q24', ...,'18q24.6'],
              ['desmoglein 1','desmoglein 4',...,'myelin'],
              ['AF485254','U49845', ...,'Z27420']]

(3,'B',4)

SELECT gene_id, prot_name, acc_num FROM gb_main;

db_result = [['NPC1','NPC1R',...,'pseudoNPC1a'],
              ['desmoglein 1','desmoglein 4',...,'myelin'],
              ['AF485254','U49845', ...,'Z27420']]

(4,'B',4)

SELECT prot_name, acc_num FROM gb_main;

db_result = [['desmoglein 1','desmoglein 4',...,'myelin'],
              ['AF485254','U49845', ...,'Z27420']]

(5,'B',4) NA
(6,'B',4) NA
(7,'B',4) NA
(8,'B',4) NA
```

LOCUS DNA SEQUENCE

```
(1,'B',5) NA
(2,'B',5) NA
(3,'B',5) NA
(4,'B',5) NA
```

```
(5,'B',5) NA
(6,'B',5) NA
(7,'B',5) NA
(8,'B',5) NA
```

CDS_MAP

```
(1,'B',6)
SELECT gb_main.acc_num,cds_map,start_cod,gene_span
FROM gb_main INNER JOIN gb_cds_map ON gb_main.acc_num = gb_cds_map.acc_num;
db_result = [['AF485254','U49845',...,'Z27420'],
              ['179..5187,6619..7050','64..676,24..8876',...,'NF'],
              ['start=3','start=1',...,'start=2'],
              ['24..8876','64..676',...,'24..8876']]

(2,'B',6)
SELECT chrom_loc,cds_map,start_cod,gene_span,gb_main.acc_num
FROM gb_main INNER JOIN gb_cds_map ON gb_main.acc_num = gb_cds_map.acc_num;
db_result = [['18q24.3','18q24', ..., '18q24.6'],
              ['179..5187,6619..7050','64..676,24..8876',...,'NF'],
              ['start=3','start=1',...,'start=2'],/
              ['24..8876','64..676',...,'24..8876'],
              ['AF485254','U49845',...,'Z27420']]

(3,'B',6)
SELECT gene_id,cds_map,start_cod,gene_span,gb_main.acc_num
FROM gb_main INNER JOIN gb_cds_map ON gb_main.acc_num = gb_cds_map.acc_num;
db_result = [['NPC1','NPC1R',...,'pseudoNPC1a'],
              ['179..5187,6619..7050','64..676,24..8876',...,'NF'],
              ['start=3','start=1',...,'start=2'],
              ['24..8876','64..676',...,'24..8876'],
              ['AF485254','U49845',...,'Z27420']]

(4,'B',6)
SELECT prot_name,cds_map,start_cod,gene_span,gb_main.acc_num
FROM gb_main INNER JOIN gb_cds_map ON gb_main.acc_num = gb_cds_map.acc_num;
db_result = [['desmoglein 1','desmoglein 4',...,'myelin'],
              ['179..5187,6619..7050','64..676,24..8876',...,'NF'],
              ['start=3','start=1',...,'start=2'],
              ['24..8876','64..676',...,'24..8876'],
              ['AF485254','U49845',...,'Z27420']]

(5,'B',6) NA
```



```

(6, 'B', 6)

SELECT cds_map, start_cod, gene_span, gb_main.acc_num
FROM gb_main INNER JOIN gb_cds_map ON gb_main.acc_num = gb_cds_map.acc_num;

db_result = [['179..5187,6619..7050','64..676,24..8876',..., 'NF'],
              ['start=3','start=1',..., 'start=2'],
              ['24..8876','64..676',..., '24..8876'],
              ['AF485254','U49845',..., 'Z27420']]

(7, 'B', 6) NA
(8, 'B', 6) NA

```

LIST, SHORT

```

(1, 'B', 7) NA
(2, 'B', 7) NA
(3, 'B', 7) NA
(4, 'B', 7) NA
(5, 'B', 7) NA
(6, 'B', 7) NA
(7, 'B', 7)

SELECT acc_num, chrom_loc, gene_id, prot_name FROM gb_main;

db_result = [['AF485254','U49845',..., 'Z27420'],
              ['18q24.3','18q24', ..., '18q24.6'],
              ['NPC1','NPC1R',..., 'pseudoNPC1a'],
              ['desmoglein 1','desmoglein 4',..., 'myelin']]

(8, 'B', 7) NA

```

LIST, LONG

(1, 'B', 8) NA	(5, 'B', 8) NA
(2, 'B', 8) NA	(6, 'B', 8) NA
(3, 'B', 8) NA	(7, 'B', 8) NA
(4, 'B', 8) NA	(8, 'B', 8) NA