Project 1--- R console text

**Exercise 1**

>Toy\_assessment <- read.csv("Toy\_assessment.csv", header = TRUE)

> Toy\_info <- read.csv("Toy\_info.csv", header = TRUE)

> dbListTables(mydb)

[1] "courses" "studentAssessment" "studentInfo" "studentRegistration"

> dbWriteTable(mydb, "Toy\_assessment", Toy\_assessment)

[1] TRUE

> dbWriteTable(mydb, "Toy\_info", Toy\_info)

[1] TRUE

> dbListTables(mydb)

[1] "Toy\_assessment" "Toy\_info" "courses" "studentAssessment" "studentInfo"

[6] "studentRegistration"

**Exercise 2**

>dbGetQuery(mydb, "SELECT price AS 'Price', category\_number, brand FROM Toy\_info ORDER BY price DESC LIMIT 20;")

Price category\_number brand

1 500 6 Zeta

2 474 1 Smith

3 437 5 Childhood

4 431 2 Edwards

5 427 3 Fear

6 422 4 Confidence

7 393 6 Union

8 368 6 Alibaba

9 357 3 Morgan

10 356 3 Jackson

11 355 6 Nike

12 339 2 Milytech

13 329 3 Western

14 310 2 Rstar

15 267 5 Bear

16 253 2 Star

17 246 1 Alpha

18 229 5 Lego

19 225 2 Phil

20 223 4 Kkoma

> dbGetQuery(mydb, "SELECT COUNT(safety\_test) FROM Toy\_assessment WHERE safety\_test = 'Pass';")

COUNT(safety\_test)

1. 17

>dbGetQuery(mydb, "SELECT COUNT(quality\_level) FROM Toy\_assessment WHERE quality\_level <3 ;")

COUNT(quality\_level)

1. 15

**Exercise 3**

> dbGetQuery(mydb, "INSERT INTO Toy\_info (price, category\_number, brand) VALUES ('1', '0', 'Inserted');")

>dbGetQuery(mydb, "UPDATE Toy\_info SET ToyInfo = 'NULL' WHERE category\_number = 0 ;")

>dbReadTable(mydb,'Toy\_info')

ToyInfo price category\_number brand

1 NA 139 1 Cody

2 NA 267 5 Bear

3 NA 193 2 Pony

4 NA 193 1 Grant

5 NA 210 4 Kel

6 NA 65 3 Knight

7 NA 474 1 Smith

8 NA 141 5 Black

9 NA 431 2 Edwards

10 NA 86 5 Ponds

11 NA 427 3 Fear

12 NA 356 3 Jackson

13 NA 157 5 T

14 NA 223 4 Kkoma

15 NA 339 2 Milytech

16 NA 225 2 Phil

17 NA 153 6 Ohio

18 NA 197 1 Tompson

19 NA 214 3 Gamma

20 NA 246 1 Alpha

21 NA 500 6 Zeta

22 NA 207 3 Auto

23 NA 393 6 Union

24 NA 329 3 Western

25 NA 253 2 Star

26 NA 437 5 Childhood

27 NA 210 1 Mimic

28 NA 65 1 Greatwall

29 NA 422 4 Confidence

30 NA 355 6 Nike

31 NA 310 2 Rstar

32 NA 229 5 Lego

33 NA 368 6 Alibaba

34 NA 357 3 Morgan

35 NA 1 0 Inserted

>dbGetQuery(mydb, "DELETE FROM Toy\_info WHERE category\_number = 0;")

> dbGetQuery(mydb, "UPDATE Toy\_assessment SET quality\_level = '-1' WHERE factory\_number = 13098;")

>dbReadTable(mydb,'Toy\_assessment')

ToyAssessment quality\_level safety\_test factory\_number

1 NA 0 Pass 66513

2 NA 1 Fail 38591

3 NA 5 Fail 67197

4 NA 4 Fail 14950

5 NA 3 Fail 25906

6 NA 3 Pass 33895

7 NA 4 Pass 64103

8 NA 0 Fail 85999

9 NA 0 Fail 29256

10 NA 2 Pass 61846

11 NA 0 Pass 68218

12 NA -1 Fail 13098

13 NA 4 Pass 16636

14 NA 2 Fail 36013

15 NA 4 Pass 16077

16 NA 5 Pass 52267

17 NA 1 Fail 95938

18 NA 4 Pass 13155

19 NA 3 Fail 42944

20 NA 2 Pass 49368

21 NA 0 Pass 45379

22 NA 1 Pass 96408

23 NA 4 Fail 73629

24 NA 5 Pass 33057

25 NA 3 Pass 66114

26 NA 4 Fail 88771

27 NA 2 Pass 75831

28 NA 5 Fail 39638

29 NA 2 Fail 18825

30 NA 4 Fail 53516

31 NA 3 Pass 62111

32 NA 4 Pass 48139

33 NA 1 Fail 58120

34 NA 5 Fail 71953

> dbGetQuery(mydb, "DELETE FROM Toy\_assessment WHERE quality\_level = -1;")

> dbGetQuery(mydb, "SELECT COUNT(\*) FROM Toy\_assessment;")

COUNT(\*)

1. 33

**Exercise 4**

> dbGetQuery(mydb,"CREATE TABLE Toy\_infonew (

+ ToyInfo TEXT, price INTEGER, category\_number INTEGER,

+ brand TEXT

+ );")

> dbGetQuery(mydb,"INSERT INTO Toy\_infonew (ToyInfo, price, category\_number,brand) SELECT ToyInfo, price, category\_number,brand FROM Toy\_info;")

> dbReadTable(mydb,'Toy\_infonew')

ToyInfo price category\_number brand

1 NA 139 1 Cody

2 NA 267 5 Bear

3 NA 193 2 Pony

4 NA 193 1 Grant

5 NA 210 4 Kel

6 NA 65 3 Knight

7 NA 474 1 Smith

8 NA 141 5 Black

9 NA 431 2 Edwards

10 NA 86 5 Ponds

11 NA 427 3 Fear

12 NA 356 3 Jackson

13 NA 157 5 T

14 NA 223 4 Kkoma

15 NA 339 2 Milytech

16 NA 225 2 Phil

17 NA 153 6 Ohio

18 NA 197 1 Tompson

19 NA 214 3 Gamma

20 NA 246 1 Alpha

21 NA 500 6 Zeta

22 NA 207 3 Auto

23 NA 393 6 Union

24 NA 329 3 Western

25 NA 253 2 Star

26 NA 437 5 Childhood

27 NA 210 1 Mimic

28 NA 65 1 Greatwall

29 NA 422 4 Confidence

30 NA 355 6 Nike

31 NA 310 2 Rstar

32 NA 229 5 Lego

33 NA 368 6 Alibaba

34 NA 357 3 Morgan

> dbGetQuery(mydb, "DROP TABLE Toy\_info;")

**Exercise 5**

dbGetQuery(mydb,"CREATE TABLE test2 ( ToyInfo TEXT, price INTEGER, category\_number INTEGER, brand TEXT );")

data frame with 0 columns and 0 rows

> dbGetQuery(mydb,"CREATE TABLE test3 ( ToyInfo TEXT, price INTEGER DEFAULT 0, category\_number INTEGER, brand TEXT );")

data frame with 0 columns and 0 rows

> dbGetQuery(mydb,"INSERT INTO test3 (ToyInfo, price, category\_number,brand) VALUES ('NA','1', '1','A');")

data frame with 0 columns and 0 rows

> dbGetQuery(mydb,"INSERT INTO test3 (ToyInfo, brand) VALUES (NULL,'A');")

data frame with 0 columns and 0 rows

> dbGetQuery(mydb, "SELECT \* FROM test3;")

ToyInfo price category\_number brand

1 NA 1 1 A

2 <NA> 0 NA A

> dbGetQuery(mydb, "DROP TABLE test3;")

**Exercise 6**

>dbGetQuery(mydb, "ALTER TABLE Toy\_assessment ADD address INTEGER DEFAULT 3 ")

> dbGetQuery(mydb, "SELECT \* FROM Toy\_assessment LIMIT 10;")

row\_names ToyAssessment quality\_level safety\_test factory\_number address

1 1 NA 0 Pass 66513 3

2 2 NA 1 Fail 38591 3

3 3 NA 5 Fail 67197 3

4 4 NA 4 Fail 14950 3

5 5 NA 3 Fail 25906 3

6 6 NA 3 Pass 33895 3

7 7 NA 4 Pass 64103 3

8 8 NA 0 Fail 85999 3

9 9 NA 0 Fail 29256 3

10 10 NA 2 Pass 61846 3

> dbGetQuery(mydb, "ALTER TABLE Toy\_assessment DROP COLUMN address;")

**Exercise 7**

> dbGetQuery(mydb,"CREATE TABLE test4 (

id INTEGER AUTO\_INCREMENT PRIMARY KEY, #Not standard syntax

score INTEGER,

student TEXT

);")

> dbGetQuery(mydb,"INSERT INTO test4 (score, student) VALUES (1, 'A');")

dbGetQuery(mydb,"INSERT INTO test4(score, student) VALUES (5, 'B');")

dbGetQuery(mydb, "SELECT \* FROM test4;")

id score student

1 1 1 A

2 2 5 B

> dbGetQuery(mydb, "DROP TABLE IF EXISTS test4;")

**Exercise 8**

dbGetQuery(mydb, "SELECT quality\_level, factory\_number FROM Toy\_assessment WHERE quality\_level > 2 AND factory\_number < 50000 ORDER BY factory\_number DESC;")

quality\_level factory\_number

1 4 48139

2 3 42944

3 5 39638

4 3 33895

5 5 33057

6 3 25906

7 4 16636

8 4 16077

9 4 14950

10 4 13155

>dbGetQuery(mydb, "SELECT price, category\_number, brand FROM Toy\_infonew WHERE brand LIKE 'A%';")

price category\_number brand

1 246 1 Alpha

2 207 3 Auto

3 368 6 Alibaba

**Exercise 9**

>dbGetQuery(mydb,"INSERT INTO Toy\_infonew (ToyInfo, price, category\_number,brand) VALUES ('NA','357', '3','Morgan');")

>dbGetQuery(mydb, "SELECT DISTINCT brand FROM Toy\_infonew;")

brand

1 Cody

2 Bear

3 Pony

4 Grant

5 Kel

6 Knight

7 Smith

8 Black

9 Edwards

10 Ponds

11 Fear

12 Jackson

13 T

14 Kkoma

15 Milytech

16 Phil

17 Ohio

18 Tompson

19 Gamma

20 Alpha

21 Zeta

22 Auto

23 Union

24 Western

25 Star

26 Childhood

27 Mimic

28 Greatwall

29 Confidence

30 Nike

31 Rstar

32 Lego

33 Alibaba

34 Morgan

**Exercise 10**

Not done