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8 # QUESTION 1(a) #####
9
10 names(dbReadTable(dbcon, "zip"))
11 |
```

11:1 QUESTION 1(a)

Console C:/Users/chopr/OneDrive/Desktop/STAT 240/

```
> names(dbReadTable(dbcon, "zip"))
[1] "zip_code" "latitude" "longitude" "city" "state" "county"
> |
```

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# QUESTION 1(b) #####  
  
tail(dbReadTable(dbcon, "CA"), n = 5)  
|

16:1

QUESTION 1(b)

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Console C:/Users/chopr/OneDrive/Desktop/STAT 240/

> tail(dbReadTable(dbcon, "CA"), n = 5)

ID	Country	Geographic_name	Region	Province	Prov_acr	Latitude	Longitude	Region_Index	
1636	1636	CA	S9V	Lloydminster	Saskatchewan	SK	53.2835	-110.0016	4
1637	1637	CA	S9X	Meadow Lake	Saskatchewan	SK	54.1335	-108.4347	4
1638	1638	CA	Y0A	Southeastern Yukon (Watson Lake)	Yukon	YT	61.5793	-131.1481	NA
1639	1639	CA	Y0B	Central Yukon (Dawson City)	Yukon	YT	64.6450	-137.5360	NA
1640	1640	CA	Y1A	Whitehorse	Yukon	YT	60.7161	-135.0537	4

> |

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# QUESTION 1(c) #####

tail(dbReadTable(dbcon, "POP2011"), n = 3)

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21:1

QUESTION 1(c)

Console C:/Users/chopr/OneDrive/Desktop/STAT 240/

> tail(dbReadTable(dbcon, "POP2011"), n = 3)

1635 Geographic\_name Incompletely\_enumerated\_Indian\_reserves\_and\_Indian\_settlements\_\_2011 Population\_\_2011

1636 Y0A NA 1758

1636 Y0B NA 6538

1637 Y1A NA 25601

1635 Total\_private\_dwellings\_\_2011 Private\_dwellings\_occupied\_by\_usual\_residents\_\_2011

1635 1090 782

1636 4282 3028

1637 10887 10307

> |

```
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22  
23 ▾ # QUESTION 1(d) #####  
24  
25 nrow(dbReadTable(dbcon, "POP2006"))  
26 |
```

26:1 # QUESTION 1(d) ↕

Console C:/Users/chopr/OneDrive/Desktop/STAT 240/ ↗

```
> nrow(dbReadTable(dbcon, "POP2006"))  
[1] 1624  
> |
```

```
33
34
35 # QUESTION 2(a) #####
36
37 names(dbReadTable(dbcon, "zip"))
38 sql_qry = "SELECT city, state, zip_code FROM zip WHERE state LIKE 'IL%'"
39 names = dbGetQuery(dbcon, sql_qry)
40 head(names)
41 nrow(names)
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```

29:1 QUESTION 1(d) ↕

Console C:/Users/chopr/OneDrive/Desktop/STAT 240/ ↗

```
> names(dbReadTable(dbcon, "zip"))
[1] "zip_code" "latitude" "longitude" "city"      "state"      "county"
> sql_qry = "SELECT city, state, zip_code FROM zip WHERE state LIKE 'IL%'"
> names = dbGetQuery(dbcon, sql_qry)
> head(names)
  city state zip_code
1   Alden   IL   60001
2 Antioch   IL   60002
3 Arlington Heights IL   60004
4 Arlington Heights IL   60005
5 Arlington Heights IL   60006
6 Elk Grove Village IL   60007
> nrow(names)
[1] 1596
```

```

65
66 # QUESTION 3(a) #####
67
68 names(dbReadTable(dbcon, "zip"))
69 names(dbReadTable(dbcon, "tickets"))
70 sql_qry = "SELECT * FROM zip
71           INNER JOIN tickets ON
72             zip.zip_code =
73             tickets.zip_code ✓
74           WHERE
75             fine_level1_amount >100"
76 join_eg = dbGetQuery(dbcon, sql_qry)
77 s1 = as.double(join_eg$latitude) ✓
78 sum(s1, na.rm = T)
79 |

```

79:1 QUESTION 3(a) :

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```

> names(dbReadTable(dbcon, "zip"))
[1] "zip_code" "latitude" "longitude" "city" "state" "county"
> names(dbReadTable(dbcon, "tickets"))
[1] "x" "ticket_number" "issue_date"
[4] "violation_location" "license_plate_number" "license_plate_state"
[7] "license_plate_type" "zipcode" "violation_code"
[10] "violation_description" "unit" "unit_description"
[13] "vehicle_make" "fine_level1_amount" "fine_level2_amount"
[16] "current_amount_due" "total_payments" "ticket_queue"
[19] "ticket_queue_date" "notice_level" "hearing_disposition"
[22] "notice_number" "officer" "address"
[25] "zip_code"
> sql_qry = "SELECT * FROM zip
+           INNER JOIN tickets ON
+             zip.zip_code =
+             tickets.zip_code
+           WHERE
+             fine_level1_amount >100"
> join_eg = dbGetQuery(dbcon, sql_qry)
> s1 = as.double(join_eg$latitude)
> sum(s1, na.rm = T) ✓
[1] 2709141
> |

```

```
19
60 - # QUESTION 3(B) #####
61
62
63 names(dbreadtable(dbcon, "POP2011"))
64 names(dbreadtable(dbcon, "POP2006"))
65 sq_query = "SELECT * FROM POP2011 INNER JOIN POP2006 ON POP2011.Geographic_name = POP2006.Geographic_name"
66 head(sq_query$dbcon, sq_query, n = 5)
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```
86
87 # QUESTION 4(a) #####
88
89 worldmap = getMap(resolution = "high")
90 names(dbreadTable(dbcon, "POP2006"))
91 query = " SELECT * FROM POP2006
92         INNER JOIN CA ON
93             POP2006.Geographic_name
94             = CA.Geographic_name
95         WHERE
96             Population__2006 < 84760
97         "
98 CanP6 = dbGetQuery(dbcon, query)
99 x = (CanP6$Longitude)
100 y = (CanP6$Latitude)
101 CanMP = worldmap[which(worldmap$SOVEREIGNTY == "Canada"),]
102 plot(CanMP, col = "white", bg = "lightblue", main = "Regions with Population less than 84760")
103 points(x,y, col = "blue", pch = 1)
104
```



### Regions with Population less than 84760



