Problem4

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Question 4a, (6 points):

Plot the locations on the Canadian map where Population in 2006 is less than the last five digits of your student id number. Make your query and plot your locations as points on your map using data obtained by your SQL query and other plotting tools from last lab. Submit your result as a .pdf file of the plot (remember to title the plot).

Hint: after plotting using the above code, you may overlay points with this command:

points(x=longitude, y=latitude, col='red', pch=16), where longitude and latitude are vectors of longitudes and latitudes resp.

```
names(dbReadTable(dbcon, "POP2006"))
```

```
## [1] "Geographic_name"
## [2] "Incompletely_enumerated_Indian_reserves_and_Indian_settlements__2006"
## [3] "Population__2006"
## [4] "Total_private_dwellings__2006"
## [5] "Private_dwellings_occupied_by_usual_residents__2006"
```

```
names(dbReadTable(dbcon, "CA"))
```

```
## [1] "ID"              "Country"         "Geographic_name" "Region"
## [5] "Province"        "Prov_acr"        "Latitude"        "Longitude"
## [9] "Region_Index"
```

```
# STUDENT ID NUMBER :301318252
sql_qry = "SELECT * FROM CA
              INNER JOIN POP2006 ON
                POP2006.Geographic_name = CA.Geographic_name
              WHERE
                Population__2006 < 18252"
join_CA_POP2006 = dbGetQuery(dbcon, sql_qry)
```

```
library(rworldmap)
worldmap = getMap(resolution = "high")
NrthAm = worldmap[which(worldmap$REGION=="North America"),]
plot(NrthAm,
     col = "white",
     bg = "lightblue",
     main = "The locations on the Canadian map \n where Population in 2006 is less than 18252",
     xlim = c(-140,-55),
     ylim = c(40,85))
points(x = join_CA_POP2006$Longitude,
       y = join_CA_POP2006$Latitude,
       col = "red",
       pch = 16)
```

The locations on the Canadian map
where Population in 2006 is less than 18252