*# Assignment 4B*

*# TASK 1*

*# installing and loading the XML package*

[**install.packages**](http://inside-r.org/r-doc/utils/install.packages)("XML")

[**library**](http://inside-r.org/r-doc/base/library)([XML](http://inside-r.org/packages/cran/XML))

*# 1)Load the XML document at the URL (http://www.xmldatasets.net/temp/179681356453762.xml) directly into a data frame.*

SenatorInfData<-xmlToDataFrame("http://www.xmldatasets.net/temp/179681356453762.xml")

**Strategy**: load the data from the URL into a dataset directly by using “xmlToDataFrame”

*# 2) Write a function that returns the names of the senators for a given state*

*# definig the Function to get senator names*

GetSenatorNames<- [**function**](http://inside-r.org/r-doc/base/function)(SenNAme){

*# get the required info from the dataframe*

StatesSenator <- SenatorInfData[SenatorInfData$state %in% SenNAme,]

*# generate the information*

Names<- [**c**](http://inside-r.org/r-doc/base/c)(StatesSenator)

*# Print the required results*

[**cat**](http://inside-r.org/r-doc/base/cat)("The name of the senators for a given state are")

[**cat**](http://inside-r.org/r-doc/base/cat)("**\n**")

FirstName<- [**c**](http://inside-r.org/r-doc/base/c)(**[Names](http://inside-r.org/r-doc/nlme/Names)**$first\_name)

[**print**](http://inside-r.org/r-doc/base/print)(FirstName)

LastName<- [**c**](http://inside-r.org/r-doc/base/c)(**[Names](http://inside-r.org/r-doc/nlme/Names)**$last\_name)

[**print**](http://inside-r.org/r-doc/base/print)(LastName)

}

GetSenatorNames("CO")

**Strategy:**

* Define a function to get the senators names
* Get the desired column from the data frame
* Generate the information and fiter the required information
* Print the results

*# 3) Write a function that returns the phone number for a given senator.*

*# defining the function getphoNENUmber to obtain data*

getphoNENUmber<- [**function**](http://inside-r.org/r-doc/base/function)(SenFirst, SenLast){

*# obtain the first and last name from the dataset*

senatENUmber <- SenatorInfData[SenatorInfData$first\_name %in% SenFirst & SenatorInfData$last\_name %in% SenLast,]

*# extract the required information*

Number <- [**c**](http://inside-r.org/r-doc/base/c)(senatENUmber)

*# print the result*

[**cat**](http://inside-r.org/r-doc/base/cat)("Phone number of a senator is")

[**cat**](http://inside-r.org/r-doc/base/cat)("**\n**")

SenatorsNumber<- [**c**](http://inside-r.org/r-doc/base/c)(Number$phone)

[**print**](http://inside-r.org/r-doc/base/print)(SenatorsNumber)

}

getphoNENUmber("Daniel K.", "Akaka")

**Strategy:**

* ***Define a function to get the phone number of the senators***
* ***Get the desired column from the data frame***
* ***Filter the required information***
* ***Print the result***