Advanced Security 1: Lab

# Part A

There are several security extensions for Google Chrome that allow for increased levels of protection. Some notable Security Extensions:

* HTTPS Everywhere:
  + Most websites nowadays are HTTPS, but some still use the unsecure/unencrypted HTTP. The Tor Project introduced an extension called HTTPS Everywhere which converts websites from HTTP to HTTPS. It will also attempt to prevent you from signing into unsecure HTTP Websites to help protect your Data
* Avast Online Security
  + This extension is designed to evaluate a websites safety. Website can be infected with Malware and other forms of malicious viruses. Avast used a tagging system and rates websites as Safe or Unsafe. It also blocks cookies, tracking ads and analytic sites which help protect your data.
* Disconnect
  + Websites, advertisers, and other third-party companies track our online activities, but finding out who's tracking us, and where they're doing it from, is a challenge. Disconnect shows you the names of specific web trackers for each site you visit and lets you block them from snooping on you. It also has a paid tier which grants access to a VPN.

These Security extensions are just some of the features that a readily accessible which help mask your presence on the Internet. They help keep your data’s integrity and prevent access by unauthorized users.

# Part B

* Why is it called the deep web?
  + The deep web, invisible web, or hidden web are parts of the World Wide Web whose contents are not indexed by standard web search-engines. Things like Databases, Intranets and Legal Files can be found here.
* How can we reach or use the deep web?
  + The Deep Web can be accessed using the Tor Browser or I2P as well as other Darknet Software.
* Are there any tools for reaching the deep web?
  + We can reach the Deep Web by using a Deep Web Browser like the Tor Browser.
* What are the dangers of using or accessing the deep web?
  + The Dangers of the Deep Web aren’t directly clear, users access the Deep Web most of the Time without realising. The threats you may encounter are more likely to be what is locked away; This includes snuff films, hitmen for hire, hackers, and much worse. Stumbling on this stuff could gain attention from the FBI. If this isn’t enough, there are plenty of scams.
* Is it legal to use the deep web?
  + It is Legal to Access the Deep Web, in fact most people access it on the daily without even realising.
* How much of the web is in the deep web?
  + The Deep Web constitutes around 90% of all websites. The Dark Web however, makes up only 0.01% of the Deep Web.

# Part C

from tkinter import \*

from typing import Match

root = Tk()

root.title("Simple Calculator")

#Setting up the Grid Foundations

e =Entry(root, width=35, borderwidth=5)

e.grid(row=0, column=0, columnspan=4, padx=10, pady=10)

#Function for

def button\_click(number):

    current= e.get()

    e.delete(0, END)

    e.insert(0, str(current) + str(number))

#Function to Wipe Screen

def button\_cls():

    e.delete(0, END)

#Function for Addition

def button\_plus():

    first\_number = e.get()

    global f\_num

    global math

    math = "addition"

    f\_num = int(first\_number)

    e.delete(0, END)

#Function for Subtraction

def button\_subtract():

    first\_number = e.get()

    global f\_num

    global math

    math = "subtraction"

    f\_num = int(first\_number)

    e.delete(0, END)

#Function for Division

def button\_div():

    first\_number = e.get()

    global f\_num

    global math

    math = "division"

    f\_num = int(first\_number)

    e.delete(0, END)

#Function for Multiplication

def button\_multi():

    first\_number = e.get()

    global f\_num

    global math

    math = "multiplication"

    f\_num = int(first\_number)

    e.delete(0, END)

#Function to Equal the Correct Function Call

def button\_equal():

    second\_number = e.get()

    e.delete(0, END)

    if math == "addition":

        e.insert(0, f\_num + int (second\_number))

    if math == "subtraction":

        e.insert(0, f\_num - int (second\_number))

    if math == "division":

        e.insert(0, f\_num / int (second\_number))

    if math == "multiplication":

        e.insert(0, f\_num \* int (second\_number))

#Define Buttons

button\_1 = Button(root, text = "1", padx=40, pady=20, command=lambda: button\_click(1))

button\_2 = Button(root, text = "2", padx=40, pady=20, command=lambda: button\_click(2))

button\_3 = Button(root, text = "3", padx=40, pady=20, command=lambda: button\_click(3))

button\_4 = Button(root, text = "4", padx=40, pady=20, command=lambda: button\_click(4))

button\_5 = Button(root, text = "5", padx=40, pady=20, command=lambda: button\_click(5))

button\_6 = Button(root, text = "6", padx=40, pady=20, command=lambda: button\_click(6))

button\_7 = Button(root, text = "7", padx=40, pady=20, command=lambda: button\_click(7))

button\_8 = Button(root, text = "8", padx=40, pady=20, command=lambda: button\_click(8))

button\_9 = Button(root, text = "9", padx=40, pady=20, command=lambda: button\_click(9))

button\_0 = Button(root, text = "0", padx=40, pady=20, command=lambda: button\_click(0))

button\_equals = Button(root, text = "=", padx=39, pady=20, command=button\_equal)

button\_minus = Button(root, text = "-", padx=39, pady=20, command=button\_subtract)

button\_add = Button(root, text = "+", padx=39, pady=20, command=button\_plus)

button\_multiply = Button(root, text = "\*", padx=39, pady=20, command=button\_multi)

button\_divide = Button(root, text = "/", padx=39, pady=20, command=button\_div)

button\_clear = Button(root, text = "Clear", padx=29, pady=20, command=button\_cls)

#Button Order on Screen

button\_1.grid(row=3, column=0)

button\_2.grid(row=3, column=1)

button\_3.grid(row=3, column=2)

button\_4.grid(row=2, column=0)

button\_5.grid(row=2, column=1)

button\_6.grid(row=2, column=2)

button\_7.grid(row=1, column=0)

button\_8.grid(row=1, column=1)

button\_9.grid(row=1, column=2)

button\_0.grid(row=4, column=1)

button\_add.grid(row=1, column=4)

button\_minus.grid(row=2, column=4)

button\_multiply.grid(row=3, column=4)

button\_divide.grid(row=4, column=4)

button\_clear.grid(row=4, column=0)

button\_equals.grid(row=4, column=2)

#Keep the Window Open

root.mainloop()