

California University of PA
Dept. of Computer Science, Info Systems, and Engineering Technology



ACET440 Computer Networking

Fall 2022

= Lab Report =

Lab 2 Clock

Andrew Bissell

Date Submitted: 09/08/2022

I. Procedure

Open the virtual desktop and acquire the putty .exe from the putty website (<https://www.chiark.greenend.org.uk/~sgtatham/putty/latest.html>). Enter Draco1.calu.lcl in the host name and set it to SSH. When prompted for a login use your pennwest email and password, take care to enter the password correctly, it will not show the characters or how many are inputted (*Figure 1*). When you locate the file use gcc filename.ext to compile and it will output a a.c if no name is given. If gcc DC.c -o DC is put in, it will compile the DC.c file and make the .exe with DC. There maybe warnings but if when ran the operation of the program is correct, they can be ignored (*Figure 2*). Use ./filename (no extension since we are running the executable) to run the program (*Figure 3*). For this exercise the program will clear and reprint the time every second so the previous lines will not be viewable until the program is closed with “ctrl+C” to quit (*Figure 4*). If the correct operation is achieved the lab is complete if not the use of nano filename.ext will be needed to edit the file in unix (*Figure 5*). Use “Ctrl+x” to exit nano and if changes where made press “y” and “enter” to return to the command line. Putty can be closed with the close window, make sure all work is saved before leaving and lastly sign out of the virtual desktop using the start button.

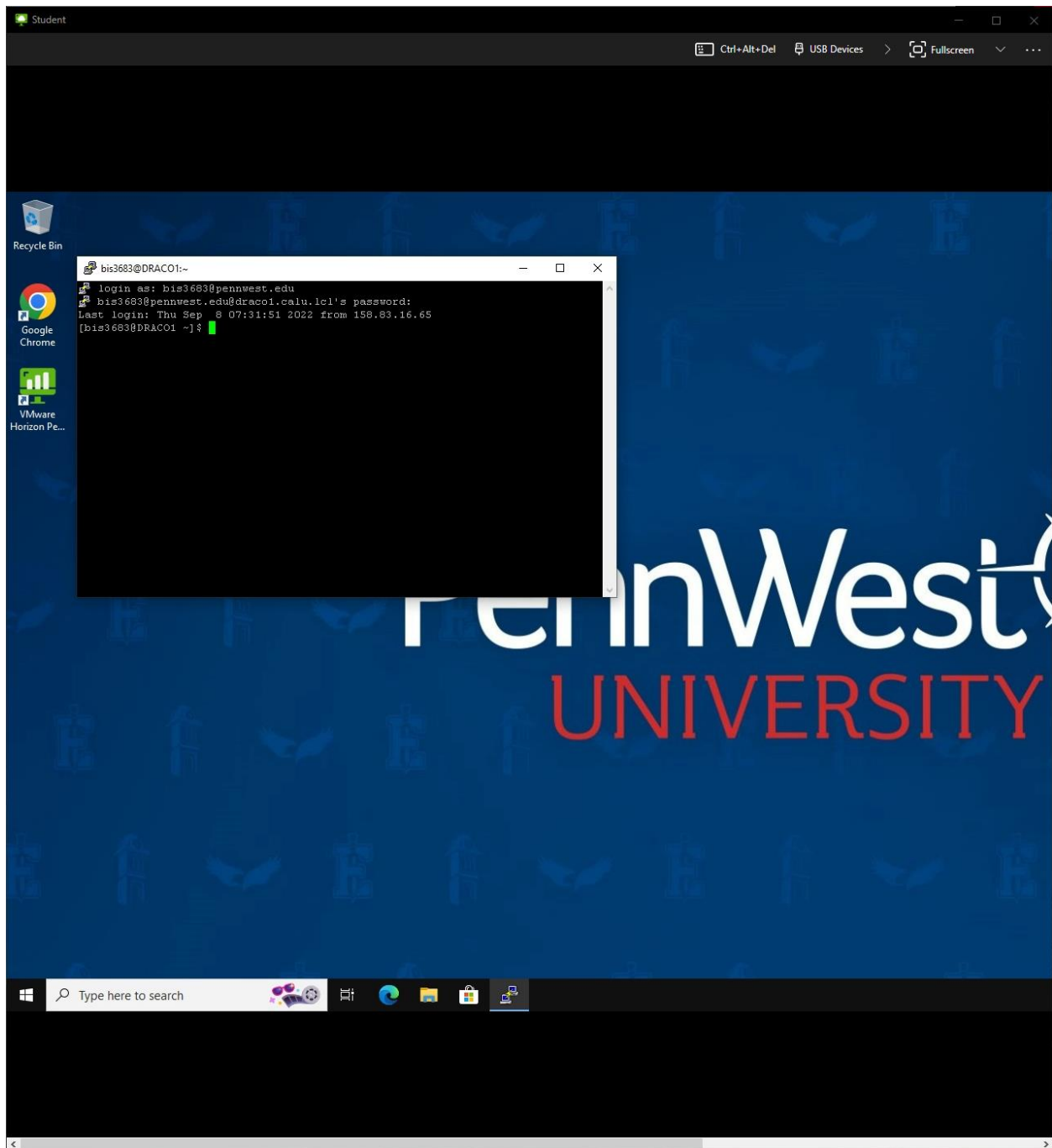


Figure 1: Logging into Draco1

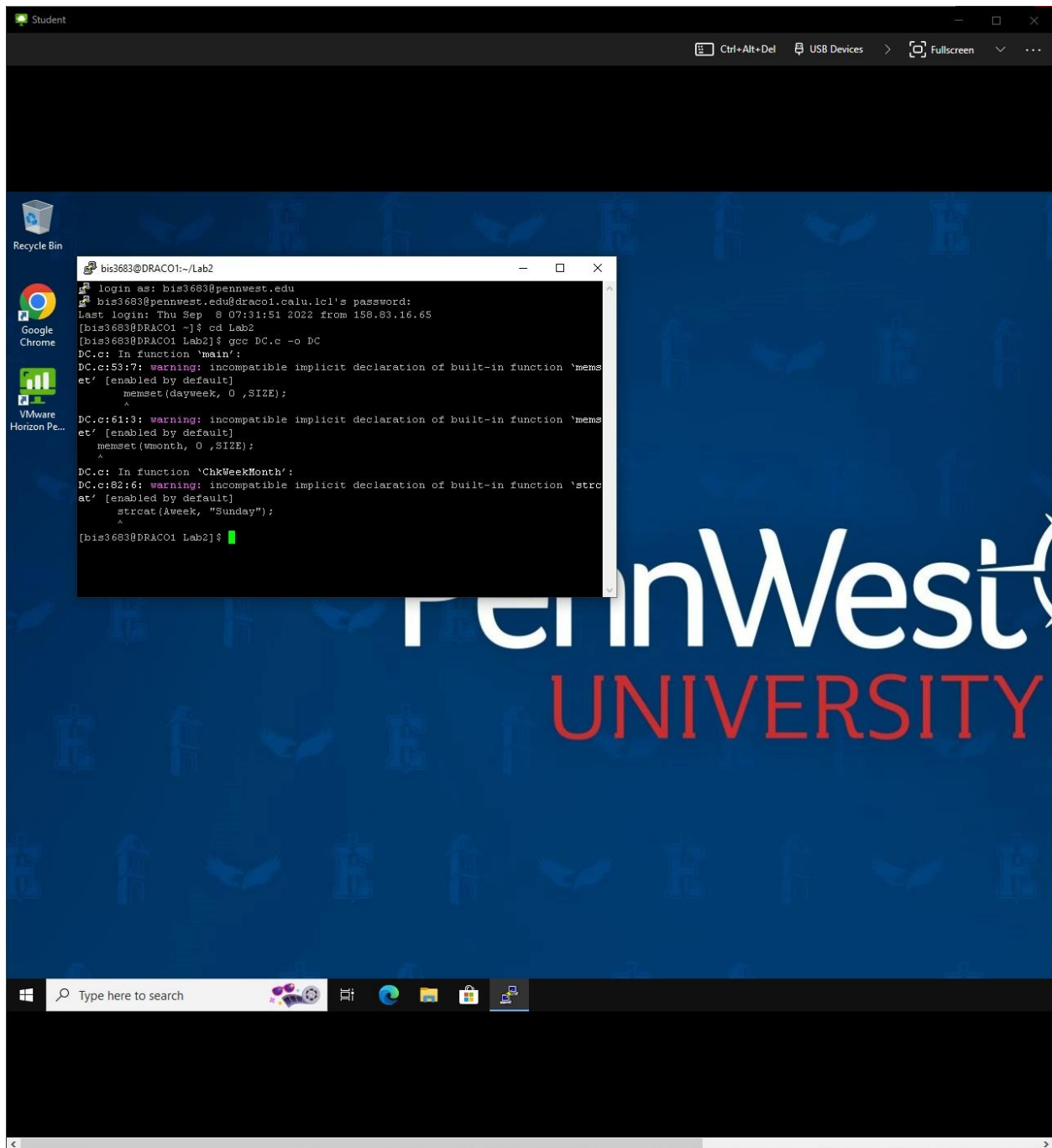


Figure 2: Compile the file

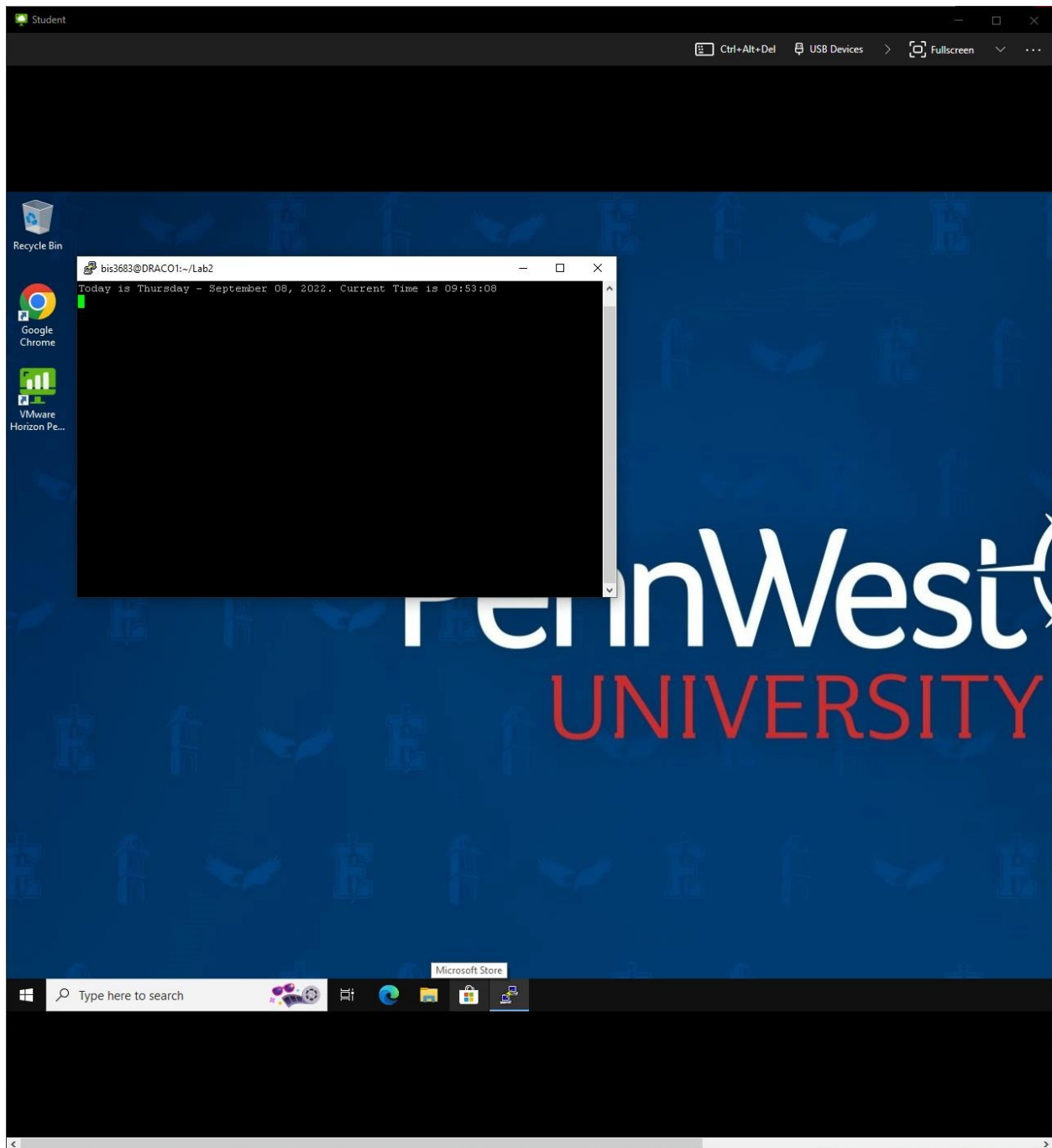


Figure 3: Run the file

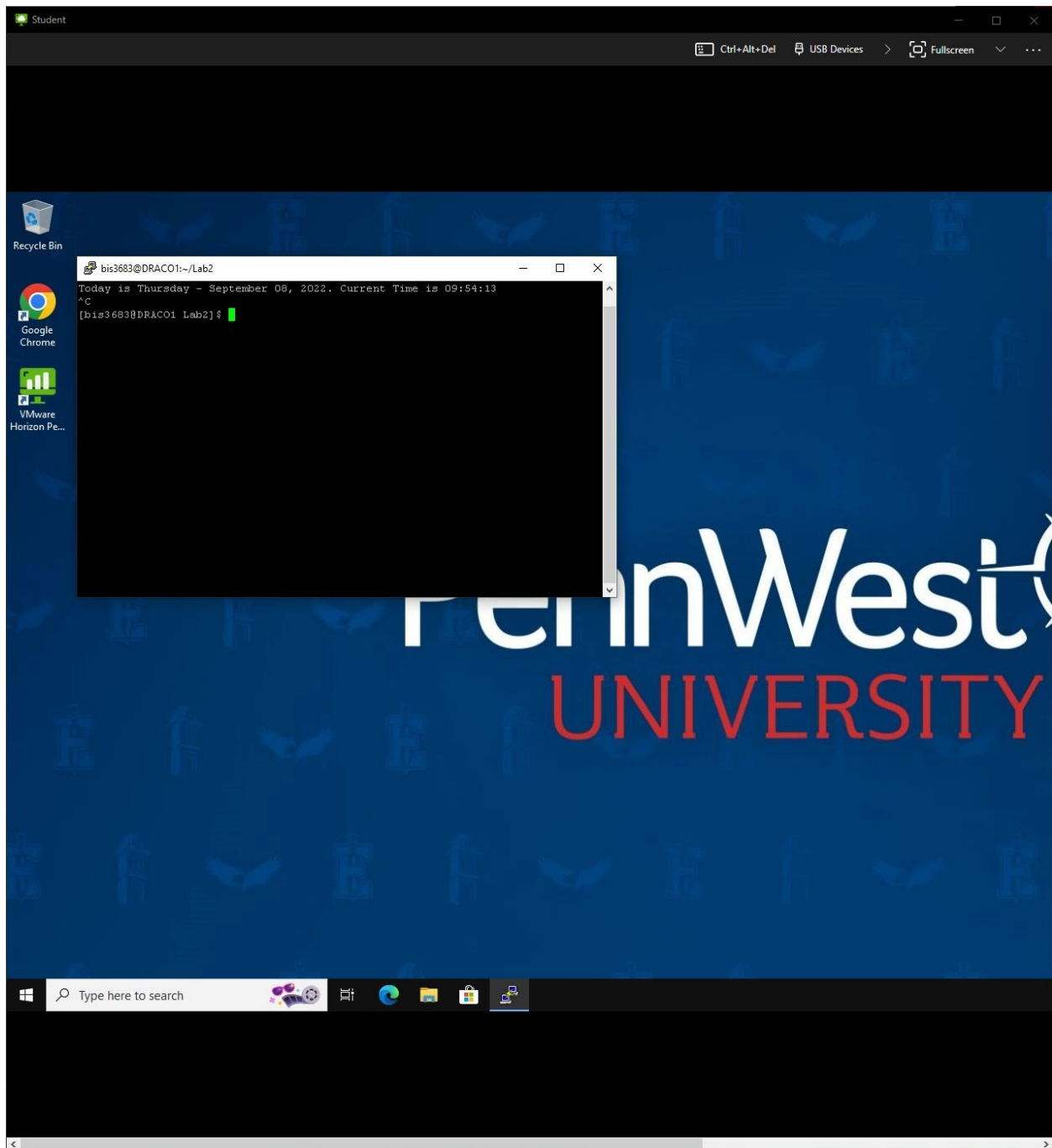


Figure 4: Quit the running program with no quit input

```
Student
Ctrl+Alt+Del USB Devices > Fullscreen ...

bis3683@DRACO1:~/Lab2
GNU nano 2.3.1 File: DC.c

#include <sys/types.h>
#include <stdio.h>
#include <time.h>
#include <unistd.h>
#include <stdlib.h>
#define SIZE 80
int main()
{
    int dayofweek, month, day, year;
    int hour, minute, second;
    char dayweek[SIZE] = {0};
    char wmonth[SIZE] = {0};
    time_t sec;
    struct tm* c_time;

    sec = time(NULL); // time in seconds
    c_time = localtime(&sec); // to get current time

    dayofweek      = c_time->tm_wday;
    month          = c_time->tm_mon;
    day            = c_time->tm_mday;
    year           = c_time->tm_year+1900;
    hour           = c_time->tm_hour;
    minute         = c_time->tm_min;
    second         = c_time->tm_sec;

    ChkWeekMonth(dayofweek, month, dayweek, wmonth);

    printf("\nToday is %s - %s %02d, %d. Current Time is %02d:%02d:%02d", dayweek,
        wmonth, day, year, // Day:Month:Year
        hour, minute, second); // Hour:Minute:Second

    // Loop to count and reset the clocks hours, minutes, and seconds
    while(1)
    {
        second++;

        //update hour, minute and second
        if(second == 60){
            minute += 1;
            second = 0;
        }
        if(minute == 60){
            hour += 1;
            minute = 0;
        }
        if(hour == 24){
            dayofweek += 1;
            day += 1;
            hour = 0;
            minute = 0;
            second = 0;
            memset(dayweek, 0, SIZE);
        }
    }
}
```

Get Help WriteOut Read File Prev Page
Exit Justify Where Is Next Page

Figure 5: Inside nano DC.c command