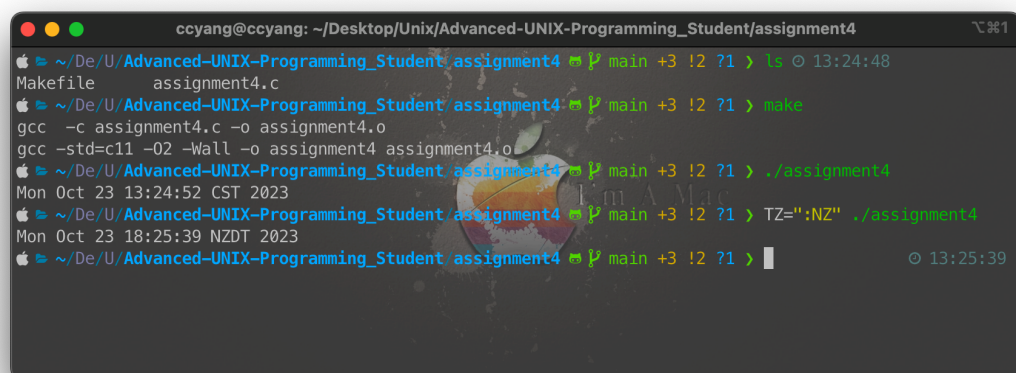# Unix Assignment4

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- Write a program that prints the current time of Asia/Taipei time zone using strftime.

- Change a time zone and show the output of the time zone you choose in your report.

We use `TZ=":NZ"` to set the time zone to NZDT before execute `./assignment4` .

- Describe your implementation in your report.

```c
int main(int agrc, char *argv[]) {
  time_t t = time(NULL);
  struct tm tm;
  char buffer[100] = {};

  localtime_r(&t, &tm);
  strftime(buffer, sizeof(buffer), "%a %b %d %X %Z %Y", &tm);

  printf("%s\n", buffer);
  return 0;
}
```

We use `time_t t = time(NULL)` in line 5 to get the current time and stores it in the variable t of type `time_t` . The variable `t` is the current time which means the number of seconds elapsed since January 1, 1970. The `struct tm tm` in line 6

defines a structure variable `tm` to store elements of time. In line 9, we use the `localtime_r(&t, &tm)` to convert the `time_t` value to local time and store the result in `tm`.

In line 10, we use `strftime(buffer, sizeof(buffer), "%a %b %d %X, %Z %Y", &tm)` to format the time elements in the `tm` according to the specified format and store the result in the `buffer`. Besides, `%a %b %d %X, %Z %Y` is the format string defining the output time format. Then we use `printf("%s\n", buffer)` to outputs the formatted time string, and return 0, which signifies successful execution.