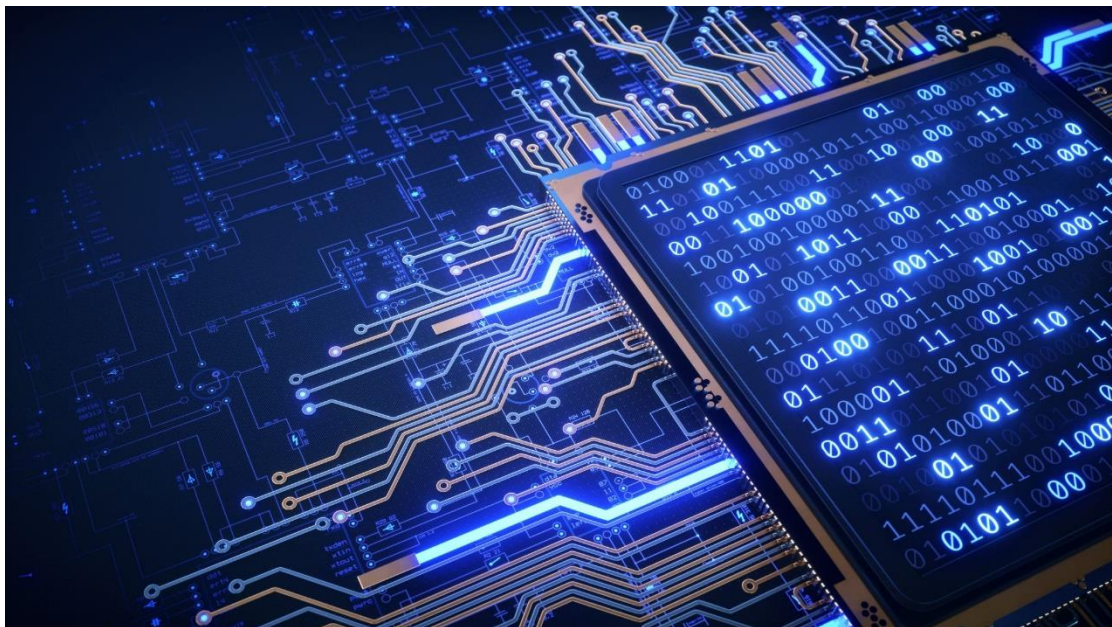# ADVANCED UNIX PROGRAMMING ASSIGNMENT REPORT

ASSIGNMENT 6

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1. Code Implementation

Noting that we can create a zombie process by preventing a parent process from reading the exit status of its child process. This is how we implement it:

First, define the command for later **ps(1)** calling:

```c
//#include "apue.h"
#include <stdio.h>
#include <stdlib.h>
#include <unistd.h>
#define PSCMD "ps -o pid,ppid,state,tty,command"
```

Then we create the child process with **fork()** and terminates it in the **else if** session:

```c
int main(){
    pid_t pid;

    if((pid = fork()) < 0){
        perror("fork error");
        exit(1);
    }
    else if(pid == 0)
        exit(0);
```

But meanwhile, we let the parent process sleep, which prevents it from reading the exit status of the child process and makes the child process become a zombie process. After that, we check whether the process is really a zombie process by **ps(1)** **with predefined command**:

```c
    /* parent */
    sleep(4);
    system(PSCMD);

    exit(0);
}
```