Vivekanand Education Society's
Institute of Technology
Approved by AICTE & Affiliated to University of Mumbai

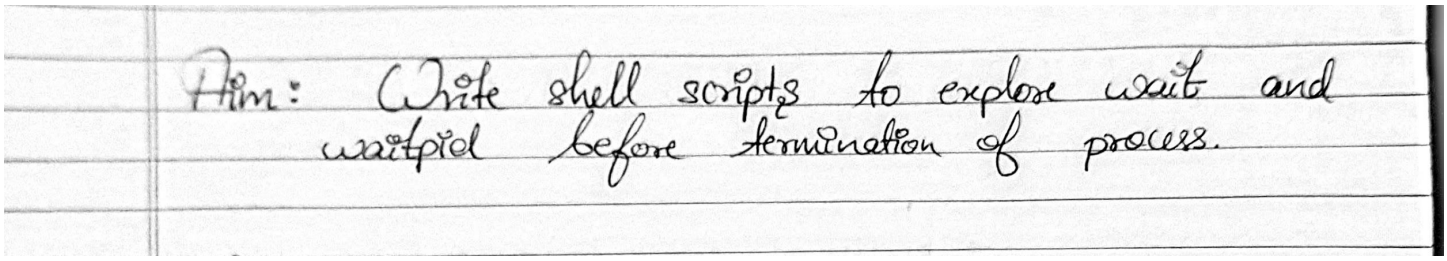
Artificial Intelligence and Data Science Department.

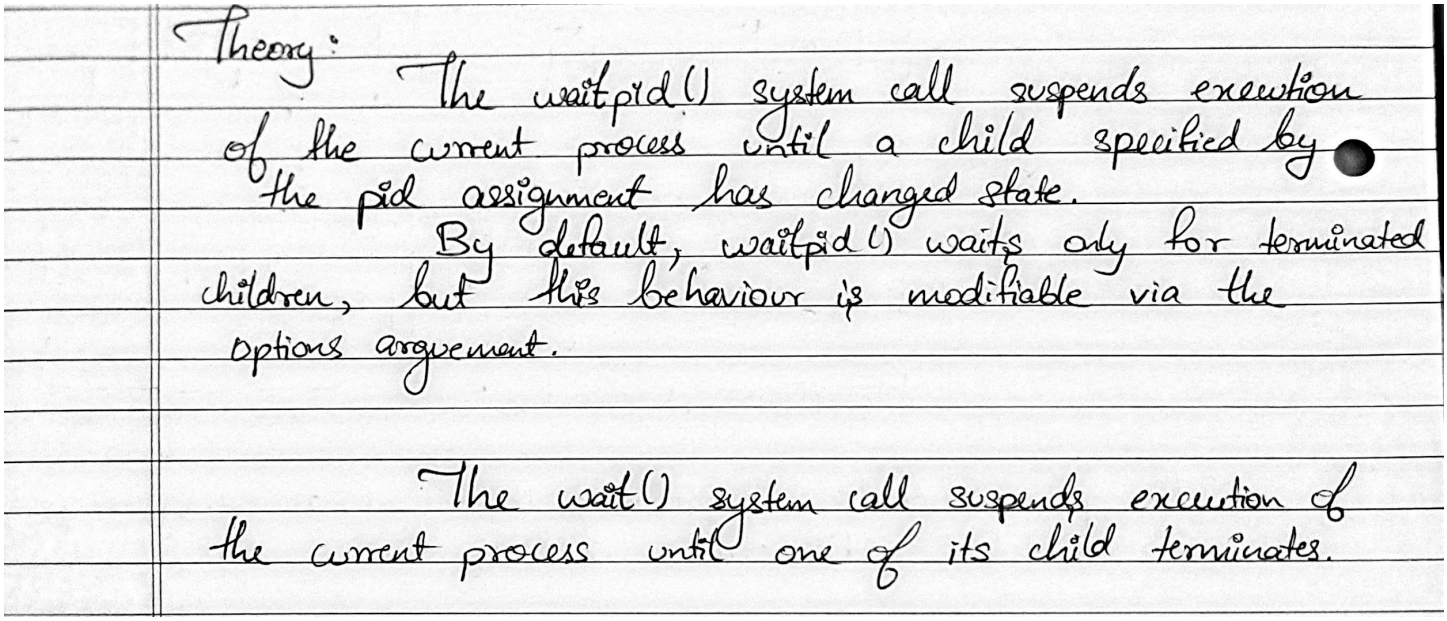
OS / Even Sem 2021-22 / Mock Practicals.

YASH SARANG.

47 / D6AD.

MOCK PRACTICALS.





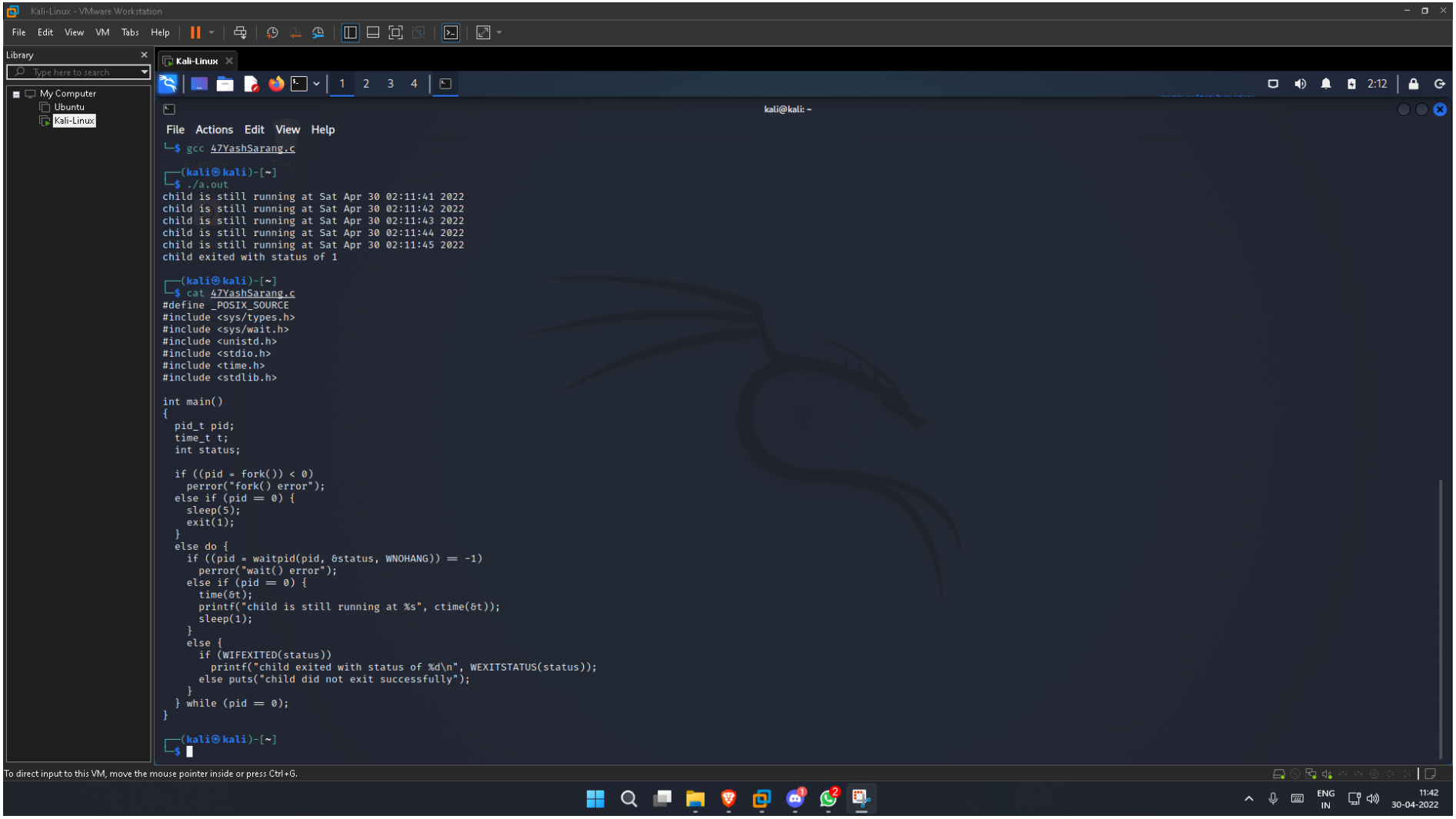
Code:

```
└─$ cat 47YashSarang.c
#define _POSIX_SOURCE
#include <sys/types.h>
#include <sys/wait.h>
#include <unistd.h>
#include <stdio.h>
#include <time.h>
#include <stdlib.h>

int main()
{
  pid_t pid;
  time_t t;
  int status;

  if ((pid = fork()) < 0)
    perror("fork() error");
  else if (pid == 0) {
    sleep(5);
    exit(1);
  }
  else do {
    if ((pid = waitpid(pid, &status, WNOHANG)) == -1)
      perror("wait() error");
    else if (pid == 0) {
      time(&t);
      printf("child is still running at %s", ctime(&t));
      sleep(1);
    }
    else {
      if (WIFEXITED(status))
        printf("child exited with status of %d\n", WEXITSTATUS(status));
      else puts("child did not exit successfully");
    }
  } while (pid == 0);
}
```

Output:

```
┌──(kali㉿kali)-[~]
└─$ ./a.out
child is still running at Sat Apr 30 02:11:41 2022
child is still running at Sat Apr 30 02:11:42 2022
child is still running at Sat Apr 30 02:11:43 2022
child is still running at Sat Apr 30 02:11:44 2022
child is still running at Sat Apr 30 02:11:45 2022
child exited with status of 1
```

Full-Screen ScreenShot:



Conclusion:-

Thus, we have successfully implemented shell scripts to explore wait() and waitpid().
