

Computer Organization and Assembly Language

Quiz# 6, Spring 2025

Monday, May 05, 2025

Name: _____

Roll Number: _____

Maximum Time Allowed: 10 minutes

Maximum Marks: 10

1. Write an assembly program to parse logs from a file named **device_logs.txt**. Each line follows the format:

`<time_stamp> <event_id> <status> <message>`

Example: 21092025 45678 OK Works.

Use system calls to read each line and split it into `time_stamp`, `event_id`, `status`, and `message`.

Ignore the entries with `status = OK`.

For `status = WARN` and `ERROR`, store their `event_id`, `timestamp`, and `message` in the buffer.

Find the total occurrences of `WARN` and `ERROR` entries.

Also find the **First ERROR** and **Most Recent WARN** log.

Write the following to a file named `report.txt`:

Total WARN Events: 3

Total ERROR Events: 2

First ERROR: 56789 at 18032023 - Critical error in module X

Most Recent WARN: 12345 at 25042023 - Module Y encountered minor issues

Print the `event_id` of all `ERROR` entries to the console.