Project Report

Project 1 ECE 573
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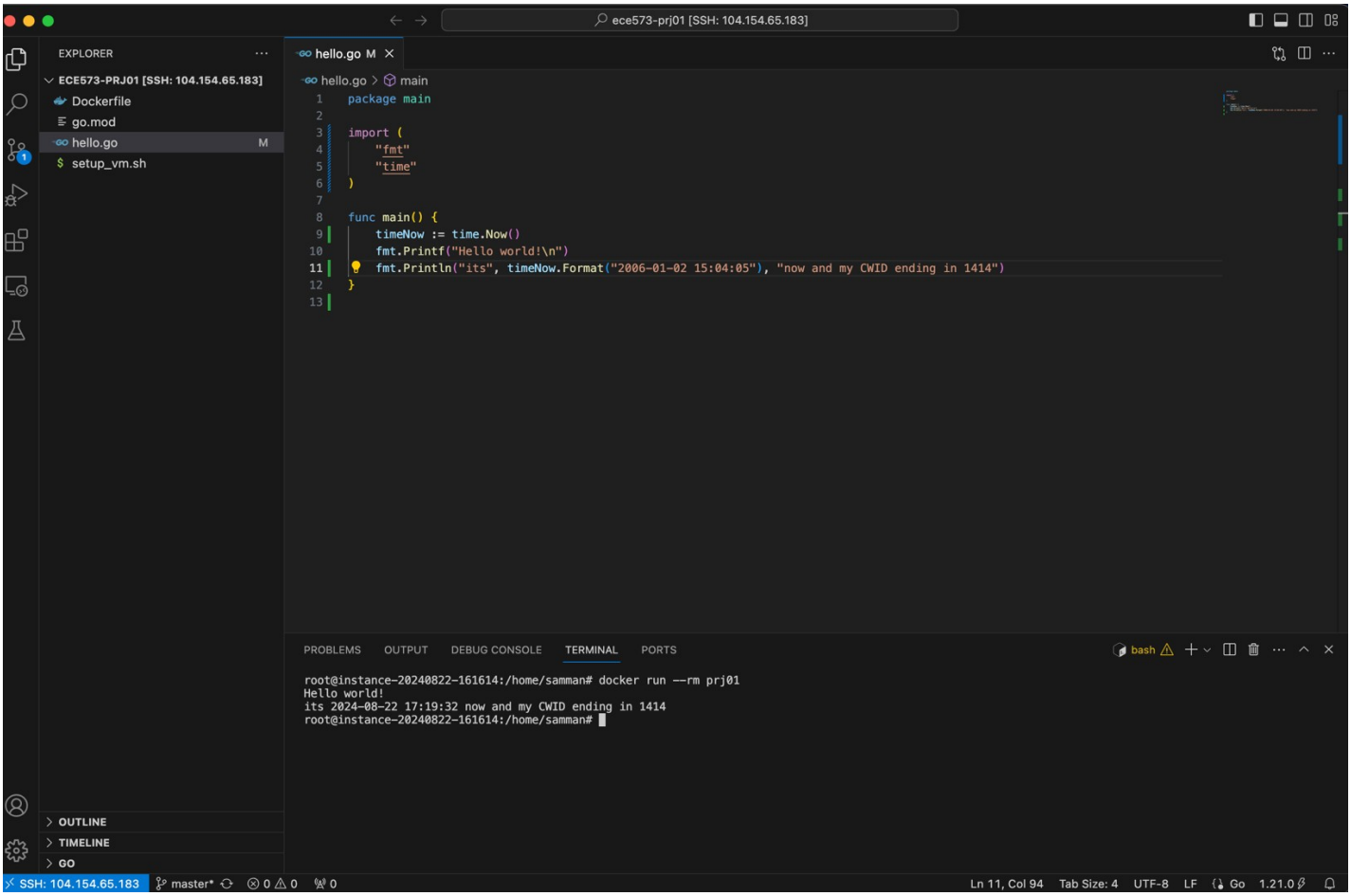
(5 points) The lines you have added to **hello.go** to print the date and time now as well as the last four digits of your CWID.

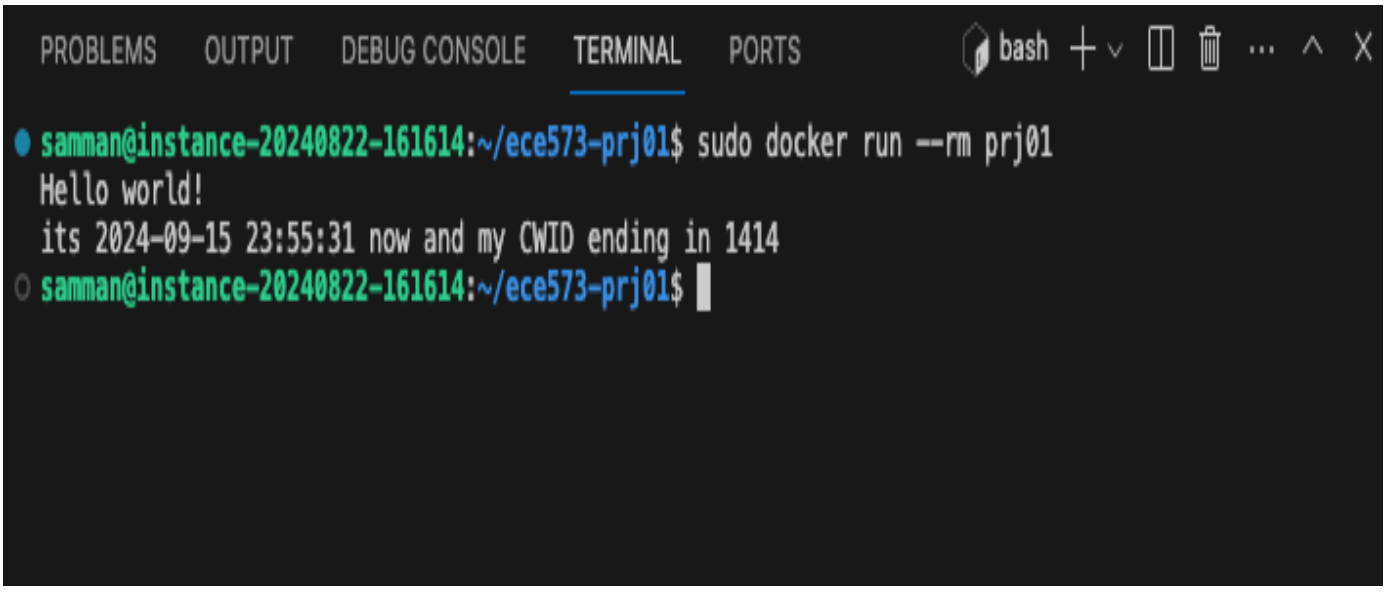
Updated Code

```
package main

import (
   "fmt"
   "time"
)

func main() {
   timeNow := time.Now()
   fmt.Printf("Hello world!\n")
   fmt.Println("its", timeNow.Format("2006-01-02 15:04:05"), "now and my CWID ending in 1414")
}
```

The library is used to call out time and print it , I have used Println , so that I can also modify how the time and date gets printed

(5 points) A screenshot showing the execution of the updated "prj01" image


ece573-prj01 [SSH: 104.154.65.183]
EXPLORER
ECE573-PRJ01 [SSH: 104.154.65.183]
Dockerfile
go.mod
hello.go M
setup_vm.sh
hello.go M
hello.go > main
1 package main
2
3 import (
4 "fmt"
5 "time"
6)
7
8 func main() {
9 timeNow := time.Now()
10 fmt.Printf("Hello world!\n")
11 fmt.Println("its", timeNow.Format("2006-01-02 15:04:05"), "now and my CWID ending in 1414")
12 }
13
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
bash
root@instance-20240822-161614:/home/samman# docker run --rm prj01
Hello world!
its 2024-08-22 17:19:32 now and my CWID ending in 1414
root@instance-20240822-161614:/home/samman#
OUTLINE
TIMELINE
GO
SSH: 104.154.65.183
master*
0 0 0
Ln 11, Col 94
Tab Size: 4
UTF-8
LF
Go
1.21.0


PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
bash
samman@instance-20240822-161614:~/ece573-prj01$ sudo docker run --rm prj01
Hello world!
its 2024-09-15 23:55:31 now and my CWID ending in 1414
samman@instance-20240822-161614:~/ece573-prj01$

Provide answers to the following questions. You may need to perform additional searches online to find the answers

- What do "pets" and "cattle" refer to?

  Pets and Cattles are metaphors to describe different approaches to server management and infrastructure design.

  Pets which is server or infrastructure components that have properties like , Treated as unique , indispensable and given individual name , configured and maintained . Very difficult to replace.

  Whereas

  Cattles components are those which are usually treated identically , mostly replaceable , automatically provisioned , Managed in groups

  Pets examples may include , legacy system , databases with unique configuration , servers w critical and non redundant roles

  Cattles examples include , Containerized applications , stateless microservices

- Why do we need to use **sudo** when executing the script **setup_vm.sh**?

  The script does package installation which uses the APT-GET , and to load the libraries for packages to be installed , Sudo or Root Privileges are required

- When we pull docker images, where on the Internet do the images come from?

  When you pull Docker images, they typically come from Docker Hub, which is the world's largest and most popular container registry. While Docker Hub is the default, images can also come from other container registries, such as:
  - Amazon Elastic Container Registry (ECR)
  - Google Container Registry
  - Azure Container Registry
  - GitHub Container Registry
  - GitLab Container Registry
  - Red Hat Quay

- What is the difference between a docker image and a container?

  Docker images are static templates for creating containers, while containers are the running instances of those images. Think of an image as a blueprint and a container as the building constructed from that blueprint. Images define the application and its environment, whereas containers are the actual execution of that application in an isolated runtime environment.