# Program

```bash
#!/bin/bash

get_total_memory(){
awk '/MemTotal/ {print $2 " " $3}' /proc/meminfo
}
get_unused_memory(){
awk '/MemFree/ {print $2 " " $3}' /proc/meminfo
}

#Function to get available memory
get_available_memory(){
awk '/MemAvailable/ {print $2 " " $3}' /proc/meminfo
}
#Function to get cached memory
get_cached_memory(){
awk '/Cached/ {print $2 " " $3}' /proc/meminfo
}
show_menu()
{
echo "Memory Information Menu"
echo "1.Total Memory in the System"
echo "2.Amount of Memory Left Unused"
echo "3.Amount of memeory Available"
echo "4.Amount of Memory Used as Cache"
echo "5.Exit"
}
while true; do
show_menu
read -p "Enter your choice" choice
case $choice in
1)echo "Total Memory in the System:$(get_total_memory)";;
2)echo "Unused Memory in the System:$(get_unused_memory)";;
3)echo "Available Memory in the System:$(get_available_memory)";;
4)echo "Memory Used as Cache:$(get_cached_memory)";;
5)echo "Exiting"
break;;
*)echo "Invalid Choice";;
esac
done
```

## Sample run of the program

```
s23a40@Server-2:~/blab$ bash exp3.sh
Memory Information Menu
1.Total Memory in the System
2.Amount of Memory Left Unused
3.Amount of memeory Available
4.Amount of Memory Used as Cache
5.Exit
Enter your choice1
Total Memory in the System:32504044 kB
Memory Information Menu
1.Total Memory in the System
2.Amount of Memory Left Unused
3.Amount of memeory Available
4.Amount of Memory Used as Cache
5.Exit
Enter your choice2
Unused Memory in the System:27867672 kB
Memory Information Menu
1.Total Memory in the System
2.Amount of Memory Left Unused
3.Amount of memeory Available
4.Amount of Memory Used as Cache
5.Exit
Enter your choice5
Exiting
s23a40@Server-2:~/blab$ ▊
```