Practical 2

Write a program to report behaviour of Linux kernel including kernel version, CPU type and model. (CPU information)

CODE

```cpp
#include<iostream>
using namespace std;


int main()
{

    cout<<"\n----------CPU Information----------\n";
    system("cat /proc/cpuinfo | grep 'cpu family'");
    system("cat /proc/cpuinfo | grep 'model'");
    system("cat /proc/cpuinfo | grep 'vendor'");


    cout<<"\n----------KERNEL Information----------\n";
    system("cat /proc/sys/kernel/osrelease");



    return 0;
}
```

OUTPUT

```
→ OSPracticals ./Practical2

----------CPU Information----------
cpu family      : 6
cpu family      : 6
cpu family      : 6
cpu family      : 6
model           : 78
model name      : Intel(R) Core(TM) i5-6300U CPU @ 2.40GHz
model           : 78
model name      : Intel(R) Core(TM) i5-6300U CPU @ 2.40GHz
model           : 78
model name      : Intel(R) Core(TM) i5-6300U CPU @ 2.40GHz
model           : 78
model name      : Intel(R) Core(TM) i5-6300U CPU @ 2.40GHz
vendor_id       : GenuineIntel
vendor_id       : GenuineIntel
vendor_id       : GenuineIntel
vendor_id       : GenuineIntel

----------KERNEL Information----------
5.10.16.3-microsoft-standard-WSL2
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```

Practical 3

Write a program to report behaviour of Linux kernel including information on configured memory, amount of free and used memory. (Memory information)

CODE

```cpp
#include <iostream>
using namespace std;

int main()
{
    cout << "----------MEMORY Information----------\n";
    system("cat /proc/meminfo | grep 'MemTotal'");
    system("cat /proc/meminfo | grep 'MemFree'");
    system("cat /proc/meminfo | grep 'MemAvailable'");

    cout << "\n\n";
    system("vmstat -s | grep 'total memory'");
    system("vmstat -s | grep 'used memory'");
    system("vmstat -s | grep 'free memory'");

    return 0;
}
```

OUTPUT

```
→ OSPracticals g++ Practical3.cpp -o Practical3
→ OSPracticals ./Practical3
----------MEMORY Information----------
MemTotal:        7810360 kB
MemFree:         7438176 kB
MemAvailable:    7501256 kB


    7810360 K total memory
      80980 K used memory
    7436640 K free memory
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```