

Program

```
function display_menu(){
    echo "Select an option to display processor information"
    echo "1.Vendor(Manufacturer)ID"
    echo "2.Model name"
    echo "3.Processor generation"
    echo "4.Number of processor chips"
    echo "5.Number of processor cores"
    echo "6.Is your process hyperthreaded?"
    echo "7.Number of logical processors"
    echo "8.Core ID of each logical processor"
    echo "9.Speed of each logical processor"
    echo "10.Cache Size"
    echo "11.Exit"
    echo -n "Enter your choice:"
}
while true; do
    display_menu
    read choice
    case $choice in
        1)
            echo -n "Vendor(Manufacturer)ID: "
            grep -m1 "vendor_id" /proc/cpuinfo | awk '{print $3}'
            ;;
        2)
            echo -n "Model Name: "
            grep -m1 "model name" /proc/cpuinfo | cut -d: -f2 | xargs
            ;;
        3)
            echo -n "Processor Generation(Family): "
            grep -m1 "cpu family" /proc/cpuinfo | awk '{print $4}'
            ;;
        4)
            echo -n "Number of Processor chips: "
            grep "physical id" /proc/cpuinfo | sort -u | wc -l
            ;;
        5)
            echo -n "Number of Processor cores: "
            grep "cpu cores" /proc/cpuinfo | uniq | awk '{print $4}'
            ;;
        6)
            echo "Is your process Hyperthreaded?"
            echo -n "Number of Siblings: "
            siblings= grep -m1 "siblings" /proc/cpuinfo | awk '{print $3}'
            echo -n "Number of Physical Cores: "
```

```

cores= grep -m1 "cpu cores" /proc/cpuinfo | awk '{print $4}'
if((" $siblings" -gt "$cores"))
then
    echo "The process is hyperthreaded."
else
    echo "The process is not hyperthreaded."
fi
;;
7)
echo -n "Number of logical processors: "
grep -c "processor" /proc/cpuinfo
;;
8)
echo -n "Core ID for each logical processor: "
grep "processor\|core id" /proc/cpuinfo
;;
9)
echo -n "Speed of each logical processor(MHz): "
grep "processor\|cpu MHz" /proc/cpuinfo
;;
10)
echo -n "Cache Size: "
grep -m1 "cache size" /proc/cpuinfo |cut -d: -f2 |xargs
;;
11)
echo "Exiting..."
exit 0
;;
*)
echo "Invalid choice.Please try again."
;;
esac
echo ""
done

```

Sample run of the program

```
s23a14@administrator-rusa: ~/s4/oslab$ ./exp2temp.sh
Select an option to display processor information
1.Vendor(Manufacturer)ID
2.Model name
3.Processor generation
4.Number of processor chips
5.Number of processor cores
6.Is your process hyperthreaded?
7.Number of logical processors
8.Core ID of each logical processor
9.Speed of each logical processor
10.Cache Size
11.Exit
Enter your choice:1
Vendor(Manufacturer)ID: GenuineIntel

Select an option to display processor information
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2.Model name
3.Processor generation
4.Number of processor chips
5.Number of processor cores
6.Is your process hyperthreaded?
7.Number of logical processors
8.Core ID of each logical processor
9.Speed of each logical processor
10.Cache Size
11.Exit
Enter your choice:2
Model Name: \Intel(R) Xeon(R) CPU E5-2609 v3 @ 1.90GHz

Select an option to display processor information
1.Vendor(Manufacturer)ID
2.Model name
3.Processor generation
4.Number of processor chips
```