# **ASSEMBLY LANGUAGE PROJECT CODES & OUTPUTS**

## **Assembly Language**

```
;MICROWAVE
%macro DisplayText 2
mov eax, 4
mov ebx, 1
mov ecx, %1
mov edx, %2
int 0x80
%endmacro
%macro TakeInput 2
mov eax, 3
mov ebx, 2
mov ecx, %1
mov edx, %2
int 0x80
%endmacro
section .data
outMsg db "-----",0xa,0xd
outMsgLen equ $-outMsg
onMsg db "1.Turn On Microwave",0xa,0xd
onMsgLen equ $-onMsg
```

offMsg db "2.Hibernate",0xa,0xd offMsgLen equ \$-offMsg

on\_Msg db "Microwave is turned On",0xa,0xd on\_MsgLen equ \$-on\_Msg

off\_Msg db "Microwave is Hibernated",0xa,0xd off\_MsgLen equ \$-off\_Msg

option db "Select Option of your Choice",0xa,0xd optionLen equ \$-option

cookMsg db "3.Cooking MODE",0xa,0xd cookMsgLen equ \$-cookMsg

cook\_Msg db "Microwave is in Cooking mode",0xa,0xd
cook\_MsgLen equ \$-cook\_Msg

reheatMsg db "4.Heating MODE",0xa,0xd reheatMsgLen equ \$-reheatMsg

reheat\_Msg db "Microwave is in Heating mode",0xa,0xd reheat\_MsgLen equ \$-reheat\_Msg

minute db "Enter the time in minutes",0xa,0xd minutelen equ \$-minute

second dq "Enter the time in seconds",0xa,0xd secondlen equ \$-second

invalidInput db "You have entered an invalid response",0xa,0xd invalidInputLen equ \$-invalidInput

```
;setting constant
```

opt1 equ '1'

opt2 equ '2'

opt3 equ '3'

opt4 equ '4'

section .bss

num resb 4

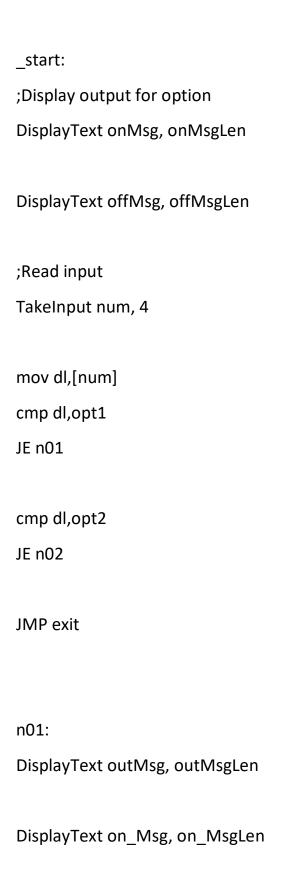
num1 resb 4

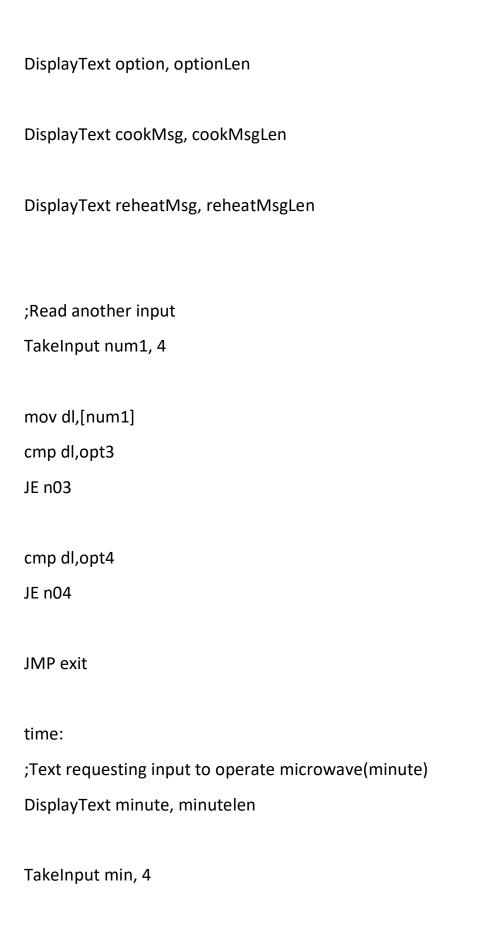
min resb 4

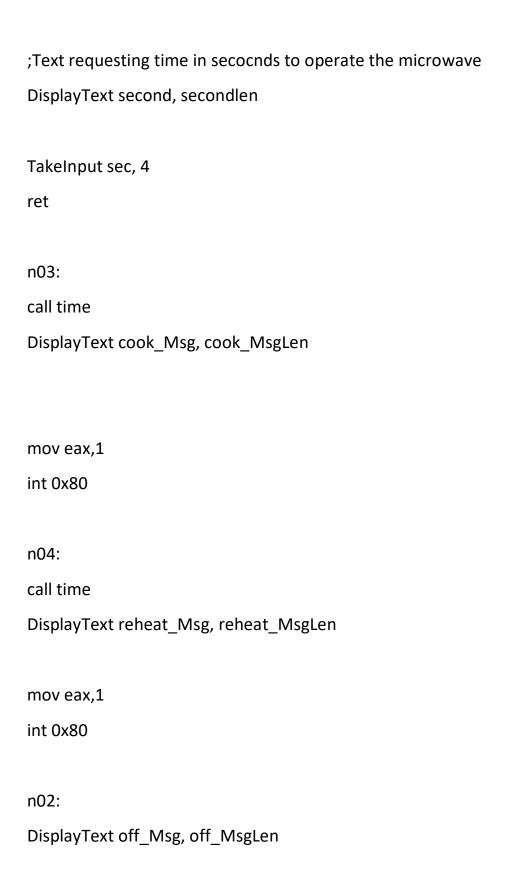
sec resb 4

section .text

global \_start







```
mov eax,1 int 0x80
```

exit:

DisplayText invalidInput, invalidInputLen

```
mov eax, 1 int 0x80
```

```
1.Turn On Microwave
2.Hibernate
1
-----NASCO MICROWAVE-----
Microwave is turned On
Select Option of your Choice
3.Cooking MODE
4.Heating MODE
3
Enter the time in minutes
10
Enter the time in seconds
30
Microwave is in Cooking mode
```

### **Python**

```
print("1. Turn on Microwave.")
print("2. Hibernate")
firstInput = input("Select Option of your choice: ")
if firstInput == '1':
  print("-----")
  print("The microwave has been turned on")
  print("Which Mode do you want to use?")
  print("1.Cooking Mode")
  print("2.Heating Mode")
  secondInput = input("Select Option of your choice: ")
  minutes = input("Enter the time in minutes: ")
  seconds = input("Enter the time in seconds: ")
  time = minutes+ " minutes" + " " + seconds+ " seconds"
  if secondInput == '1':
    print("The microwave will cook for " + time)
  elif secondInput == '2':
    print("The microwave will heat for " + time)
  else:
```

```
print("You have entered an invalid response. Enter [1] or [2].")
elif firstInput == '2':
  print("The microwave has been turned off.")
else:
  print("You have entered an incorrect response. Enter [1] or [2].")
```

```
    Turn on Microwave.
    Hibernate
    Select Option of your choice: 1

            -----NASCO MICROWAVE-----

    The microwave has been turned on
    Which Mode do you want to use?
    Cooking Mode
    Heating Mode
    Select Option of your choice: 1
    Enter the time in minutes: 10
    Enter the time in seconds: 30
    The microwave will cook for 10 minutes 30 seconds
```

#### <u>C++</u>

```
#include <iostream>
using namespace std;
int main(){
  int firstInput;
  int secondInput;
  string minutes, seconds;
  cout<<"-----\n";
  cout<<"[1] Turn on Microwave.\n";
  cout<<"[2] Hibernate.\n";</pre>
  cout<<"Select your option: \n";</pre>
  cin>>firstInput;
    if(firstInput==1){
      cout<<"The microwave has been turned on.\n";</pre>
      cout<<"-----"<<"\n";
      cout<<"Which Mode do you want to use?\n";
      cout<<"[1] Cooking Mode\n";</pre>
      cout<<"[2] Warming Mode\n";
      cin>>secondInput;
        if(secondInput==1){
         cout<<"Enter the time in minutes: ";
         cin>>minutes;
         cout<<"Enter the time in seconds: ";
```

```
cin>>seconds;
          cout<<"The microwave will cook for "<<minutes<<" mins "
<<seconds<<" secs.\n";
        }
        else if(secondInput==2){
           cout<<"Enter the time in minutes: ";
          cin>>minutes;
          cout<<"Enter the time in seconds: ";
          cin>>seconds;
          cout<<"The microwave will warm for "<<minutes<<" mins
"<<seconds<<" secs.\n";
        }
        else{
          cout<<"You have entered an invalid response. Enter [1] or [2].\n";
        }
    }
    else if(firstInput==2){
      cout<<"The microwave has been hibernated.\n";</pre>
    }
    else{
      cout<<"Your have entered an incorrect response. Enter [1] or [2].\n";
    }
    return 0;
}
```

```
[1] Turn on Microwave.
[2] Hibernate.
Select your option:

The microwave has been turned on.
-----NASCO MICROWAVE----
Which Mode do you want to use?
[1] Cooking Mode
[2] Warming Mode

1
Enter the time in minutes: 10
Enter the time in seconds: 30
The microwave will cook for 10 mins 30 secs.
[hotmint C++]#
```

#### **JAVA**

```
package com.company.hello;
import java.util.Scanner;
public class Main {
  public static void main(String[] args) {
    Scanner colInput= new Scanner(System.in);
    String optionSelect = "Select your preferred option";
    System.out.println("1. Turn on microwave");
```

```
System.out.println("2. Turn off Microwave");
System.out.println(optionSelect);
int firstInput;
int secondInput;
int minute; int second;
String time;
firstInput = colInput.nextInt();
if (firstInput == 1) {
System.out.println("-----");
System.out.println("The microwave has been turned on");
System.out.println("Which mode do you want the microwave to operate in?");
System.out.println("1.Cooking Mode");
System.out.println("2.Heating Mode");
System.out.println(optionSelect);
secondInput = colInput.nextInt();
if (secondInput == 1 | | secondInput == 2) {
System.out.println("Enter the time in minutes");
minute = colinput.nextInt();
System.out.println("Enter the time in seconds");
second = colinput.nextInt();
time = minute + " minutes " + second + " seconds";
if (secondInput == 1) {
System.out.println("The microwave will cook for " + time);
}
```

```
else {
System.out.println("The microwave will heat for " + time);
}
}
else {
System.out.println("You have entered an invalid response");
}
}
else if (firstInput == 2) {
System.out.println("The microwave has been turned off");
}
else {
System.out.println("You have entered an invalid response so the microwave will
be
turned off");
}
```