

1

```
program helloWorld;  
#include ("stdlib.hhf");  
begin helloWorld;  
  stdout.put("Hello, World of Assembly Language", nl);  
end helloWorld;
```

2

```
program chaguaAlama;  
#include ("stdlib.hhf");  
  
static  
op: char;  
  
begin chaguaAlama;  
  stdout.put("Enter the character item:", nl);  
  stdin.get(op);  
  mov(op, ch);  
  if(ch = 'a') then  
    stdout.put("You selected the 'a' menu item", nl);  
  elseif(ch = 'b') then  
    stdout.put("You selected the 'b' menu item", nl);  
  elseif(ch = 'c') then  
    stdout.put("You selected the 'c' menu item", nl);  
  else  
    stdout.put("Error: illegal menu item selection", nl);  
  endif;  
end chaguaAlama;
```

3

```
program characters;  
#include("stdlib.hhf");  
  
static  
c: char;  
letterA: char:= 'A';  
  
begin characters;  
  stdout.put("Initialised character value is",letterA,nl);  
  stdout.put("Enter a new character value:");  
  stdin.get(c);  
  stdin.put("You entered the following new character value:",c,nl);  
end characters;
```

4

```
program harafu;  
#include ("stdlib.hhf");  
  
static  
i32: int32;  
  
begin harafu;  
  stdout.put("Enter the required value: ",i32,nl);  
  stdin.get(i32);  
  mov(i32,eax);  
  if(eax = 0) then  
    stdout.put("error: NULL VALUE", nl);  
  endif;  
end harafu;
```

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```
program harafuHivi;  
#include ("stdlib.hhf");  
  
static  
i32: int32;  
  
begin harafuHivi;  
  stdout.put("Enter the required value: ", nl);  
  stdin.get(i32);  
  mov(i32,eax);  
  if(eax = 0) then  
    stdout.put("error: NULL VALUE", nl);  
  else  
    stdout.put("Pointer is valid", nl);  
    endif;  
end harafuHivi;
```

6

```
program hesabu;  
#include ("stdlib.hhf");  
  
static  
i: int32;  
  
begin hesabu;  
  mov(0,i);  
  while (i<10) do  
    stdout.put("i=", i, nl);  
    add(1,i);  
  endwhile;
```

```
end hesabu;
```

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```
program hesabuFo;  
#include ("stdlib.hhf");  
  
static  
i: int32;  
  
begin hesabuFo;  
  mov(0,i);  
  for (mov(0, i); i<10; add(1,i)) do  
    stdout.put("i=", i, nl);  
  endfor;  
end hesabuFo;
```

8

```
program ikiwaHarafu;  
#include ("stdlib.hhf");  
  
static  
i32: int32;  
  
begin ikiwaHarafu;  
  stdout.put("Enter the required value: ",i32,nl);  
  stdin.get(i32);  
  mov(i32,eax);  
  if(eax = 0) then  
    stdout.put("error: NULL VALUE", nl);  
  endif;  
end ikiwaHarafu;
```

9

```
program maneno;  
#include("stdlib.hhf");  
  
static  
c: char;  
  
letterA: char:= 'A';  
  
begin maneno;  
  
stdout.put("Initialised character value is ",letterA,nl);  
  
stdout.put("Enter a new character value:");  
  
stdin.get(c);  
  
stdout.put("You entered the following new character value: ",c,nl);  
  
end maneno;
```

10

```
program milele:  
#include("stdlib.hhf");  
  
static  
i: int32;  
  
begin milele;  
  
forever  
  
stdout.put("Enter an integer less than 10:");  
  
stdin.get(i);  
  
breakif(i>10);  
  
stdout.put(The value needs to be less than 10!, nl );  
  
endfor;  
  
end milele;
```

11

```
program numbers;
#include ("stdlib.hhf");

static
i8: int8;
i16: int16;
i32: int32;

begin numbers;
stdout.put("Enter integer values:",nl);

stdin.get(i8);
stdin.get(i16);
stdin.get(i32);

stdout.put("You have entered the following values:", nl);
stdout.put(i8,nl);
stdout.put(i16,nl);
stdout.put(i32,nl);
end numbers;
```

12

```
program rudiaHadi;
#include("stdlib.hhf");

begin rudiaHadi;
mov(20, eax);
repeat
stdout.put(" eax =", eax, nl);
sub(1, eax);
until(eax = 0);
end rudiaHadi;
```