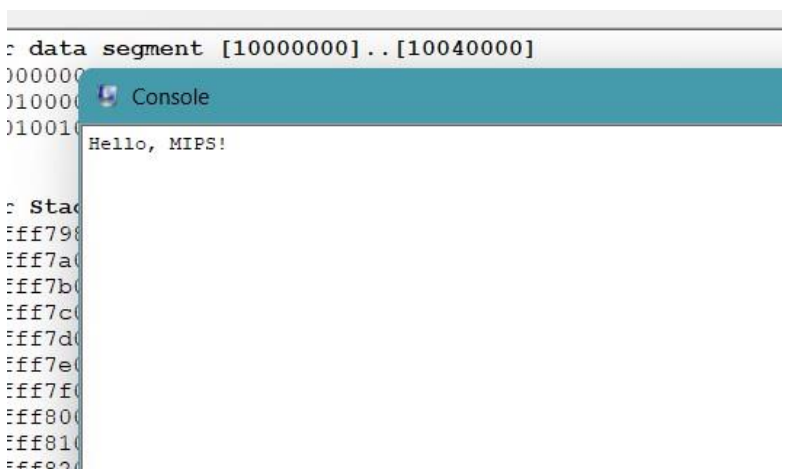
EXERCISE

1. Write a MIPS program to print the string "Hello, MIPS!".

Source Code

```
.data
msg: .asciiz "Hello, MIPS!"
.text
main:
   li $v0, 4
   la $a0, msg
   syscall

   li $v0, 10   # Exit
   syscall
```

Output

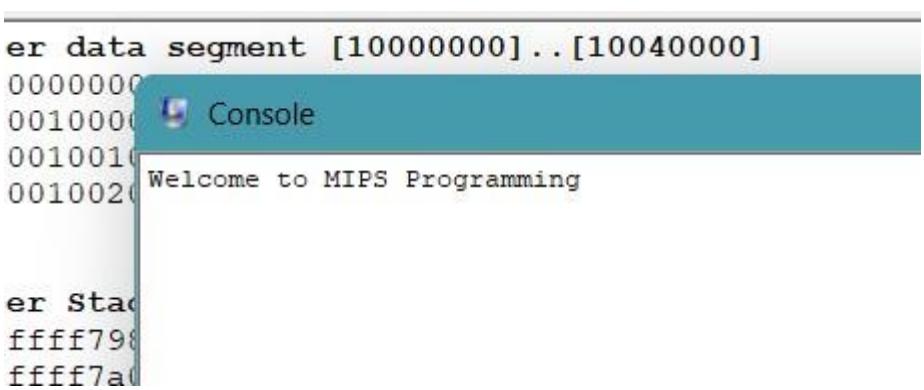


2. Write a MIPS program to print the string "Welcome to MIPS Programming".

Source Code

```
.data
msg: .asciiz "Welcome to MIPS Programming"

.text
.globl main   # make 'main' globally visible to linker

main:
   li $v0, 4        # syscall: print_string
   la $a0, msg      # load address of string
   syscall

   li $v0, 10       # syscall: exit
   syscall
```

Output

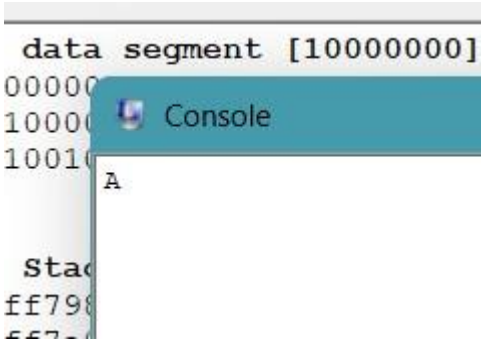


3. Write a MIPS program to print the character 'A'.

Source Code

```
.data
msg: .asciiz "A"

.text
.globl main
main:
   li $v0, 4
   la $a0, msg
   syscall

   li $v0, 10
   syscall
```

Output



4. Write a MIPS program to print the character 'B'.

Source Code

```
.data
msg: .asciiz "B"

.text
.globl main
main:
   li $v0, 4
   la $a0, msg
   syscall

   li $v0, 10
   syscall
```

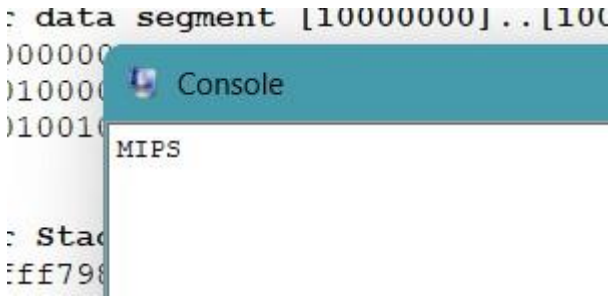
Output

5. Write a MIPS program to print the string "MIPS" followed by a new line.

Source Code

```
.data
msg: .asciiz "MIPS\n"

.text
.globl main

main:
    li $v0, 4
    la $a0, msg
    syscall

    li $v0, 10
    syscall
```

Output

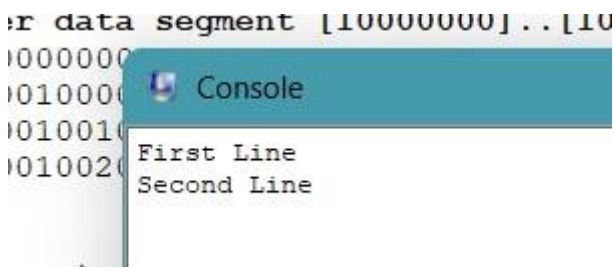


6. Write a MIPS program to print "First Line" and then print "Second Line" on the next line.

Source Code

```
.data
line1: .asciiz "First Line\n"
line2: .asciiz "Second Line\n"

.text
.globl main

main:
   li $v0, 4
   la $a0, line1
   syscall

   li $v0, 4
   la $a0, line2
   syscall

   li $v0, 10
   syscall
```

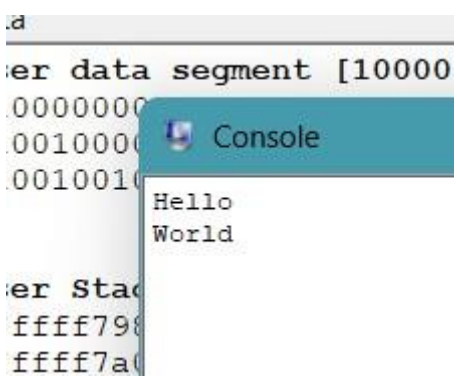
Output



7. Write a MIPS program to print "Hello" on the first line and "World" on the second line.
   Source Code

```
.data
hello: .asciiz "Hello\n"
world: .asciiz "World\n"

.text
.globl main

main:
   li $v0, 4
   la $a0, hello
   syscall

   li $v0, 4
   la $a0, world
   syscall

   li $v0, 10
   syscall
```

Output

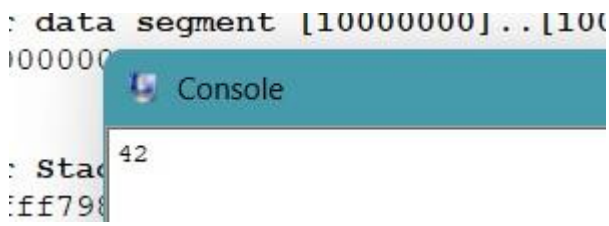


8. Write a MIPS program to print the integer 42.

Source Code

```
.text
.globl main

main:
   li $v0, 1      # print_int
   li $a0, 42
   syscall

   li $v0, 10
   syscall
```

Output

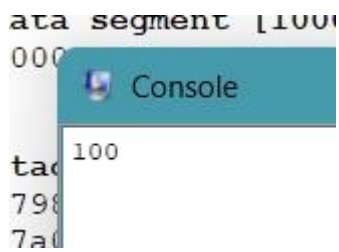


9. Write a MIPS program to print the integer 100.

Source Code

```
.text
.globl main

main:
   li $v0, 1      # print_int
   li $a0, 100
   syscall

   li $v0, 10
   syscall
```

Output

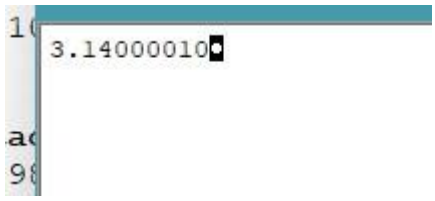


10. Write a MIPS program to print the floating-point number 3.14

Source Code

```
.data
f: .float 3.14

.text
.globl main

main:
   li $v0, 2          # print_float
   l.s $f12, f
   syscall

   li $v0, 10
   syscall
```

Output



11. Write a MIPS program to print the floating-point number 1.23

Source Code

```
.data
f: .float 1.23

.text
.globl main

main:
   li $v0, 2          # print_float
   l.s $f12, f
   syscall

   li $v0, 10
   syscall
```

Output