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UNIVERSITY OF PETROLEUM AND ENERGY STUDIES
End Semester Examination, July 2020

Course: Mobile Application Development Using IOS	**Semester: IV**
Program: B.Tech + CSE (BAO)	**Time**
Course Code: CSMC3003	**Max. Marks:**

Instructions:

UPES

Rohit Srivastava **104** ▾

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☐ **1. Multiple Answer: 11: What output will be produced by the c...**   Points: [1]

Question

What output will be produced by the code below?

import Foundation

let rounded: Int = round(10.5)

print("Rounding 10.5 makes \(rounded)")

Answer	
	Rounding 10.5 makes 11
	Rounding 10.5 makes 10.5
	Rounding 10.5 makes nil
✅	None of these

☐ **2. Multiple Answer: 12: What output will be produced by the c...**   Points: **1**

Question

What output will be produced by the code below?

```
var i = 1

mainLoop: repeat {
  i += 2

    switch i % 2 {
    case 0:
        break mainLoop
    default:
        break
    }
} while true

print("Complete!")
```

Answer	
	Complete!
	1
	The code will not compile
✅	None of these

3. Multiple Answer: 13: Once this code is executed, how many ...

Points: 1

Question	Once this code is executed, how many items will be in the result array?

let names: [String?] = ["Barbara", nil, "Janet", nil, "Peter", nil, "George"]

let result = names.compactMap { $0 }

Answer

7

✓ 4

nil

None of these

4. Multiple Answer: 14: What output will be produced by the c...

Points: 1

Question

What output will be produced by the code below?

```swift
struct TaylorFan {
    static var favoriteSong = "Shake it Off"
    var name: String
    var age: Int
}

let fan = TaylorFan(name: "James", age: 25)
print(fan.favoriteSong)
```

Answer

Shake it off

James : 25

nil

✅ None of these

☐ **5. Multiple Answer: 16: What output will be produced by the c...**   Points: 1

Question

What output will be produced by the code below?

```
func greet(_ name: inout String) {
    name = name.uppercased()
    print("Greetings, \(name)!")
}


var name = "Mal"
greet(name)
print("Goodbye, \(name)!")
```

Answer

GREETINGS Mal

GOODBYE MAL

GREETINGS MAL

✅ None of these

☐ **6. Multiple Choice: 16: What output will be produced by the c...**

Points: 1

Question

What output will be produced by the code below?

```
let names = ["Pilot": "Wash", "Doctor": "Simon"]
let doctor = names["doctor"] ?? "Bones"
print(doctor)
```

Answer

Wash

Simon

Wash, Simon

✅ None of these

☐ **7. Multiple Choice: 17: What output will be produced by the c...**   Points: **1**

Question

What output will be produced by the code below?

```swift
enum MyError: Error {
case broken    case
busted    case
badgered
}


func willThrowAnError() {
throw MyError.busted
}


do {    try
willThrowAnError() } catch
MyError.busted {
print("Code was busted!")
} catch {    print("Code just
didn't work")
}
```

Answer	Code was busted!
	Code just didn't work
	0

☑ **None of these**

☐ 8. Multiple Choice: 18: We can return multiple values in swif...

Points: **1**

Question	We can return multiple values in swift from function by using
Answer	Array
	☑ Tuple
	Both A and B
	None of these

☐ 9. Multiple Choice: 19: Which of the following is an incorrec...

Points: **1**

Question	Which of the following is an incorrect data type in Swift
Answer	UInt
	Double
	☑ Char
	Optional

10. Multiple Choice: 1: What output will be produced by the c...

Points: 1

Question	What output will be produced by the code below?
	let names = ["Simon", "River", "Book"]

```
names.forEach {
  print($1)
}
```

Answer	
	Simon
	River
	Book
	✅ None of these

11. Multiple Choice: 20: If you do not want to mention externa...

Points: 1

Question	If you do not want to mention external name in function call then what should be preceded before the parameters while defining the function ?
Answer	?
	!
	✅ _

\

☐ **12. Multiple Choice: 2: What output will be produced by the c...**　　　　　Points: 1

Question	What output will be produced by the code below?
	let bigNumber = Int.max
	let biggerNumber = bigNumber + 1
	print(biggerNumber)

Answer	
	55
	32
	nil
✅	None of these

☐ **13. Multiple Choice: 3: What output will be produced by the c...**　　　　　Points: 1

Question	

What output will be produced by the code below?

```swift
func greet(_ name: inout String) {
    name = name.uppercased()
    print("Greetings, \(name)!")
}


var name = "Mal"
greet(name)
print("Goodbye, \(name)!")
```

Answer

Greetings

Goodbye

GREETINGS, GOODBYE

✅ None of these

☐ **14. Multiple Choice: 4: When this code is executed, what data...**

Points: 1

Question   When this code is executed, what data type does convertedNumber have?

```swift
let possibleNumber = "1701"
let convertedNumber = Int(possibleNumber)
```

Answer

Int

UInt

Int32

✅ Int?

☐ **15. Multiple Choice: 5: What output will be produced by the c...**

Points: 1

Question   What output will be produced by the code below?

import Foundation

let crew = NSMutableDictionary()

crew.setValue("Kryten", forKey: "Mechanoid")

print(crew.count)

Answer   ✅ 1

2

3

None of these

☐ **16. Multiple Choice: 5: What output will be produced by the c...**

Points: 1

Question	What output will be produced by the code below? var crew = ["Captain": "Malcolm", "Doctor": "Simon"] crew = [:] print(crew.count)

Answer

1

2

4

✅ None of these

☐ **17. Multiple Choice: 5: When this code is executed, how many ...**

Points: 1

Question	When this code is executed, how many items will the names array contain? var names = [String]() names.reserveCapacity(2) names.append("Amy") names.append("Rory") names.append("Clara")

Answer

1

2

✅ 3

0

☐ **18. Multiple Choice: 6: Read the code below: var foo...**   Points: **1**

Question	Read the code below:
	var foo: Float = 32
	var bar: Double = 32
	Assuming no typecasting, which of the following statements is true?

Answer	
	Value of foo is assigned to bar
✅	Neither variable can be assigned to the other
	The code will not compile
	None of these

☐ **19. Multiple Choice: 6: What output will be produced by the c...**   Points: **1**

Question   What output will be produced by the code below?

```
let point = (556, 0)
switch point {
case (let x, 0):
    print("X was \(x)")
case (0, let y):
    print("Y was \(y)")
case let (x, y):
    print("X was \(x) and Y was \(y)")
}
```

Answer

X was 556 and Y was 0

✅ X was 556

The code will not compile

None of these

☐ **20. Multiple Choice: 6: When this code is executed, what valu...**   Points: 1

Question

When this code is executed, what value does result contain?

```
func sum(numbers: Int...) -> Int {

  var result = 0

    for number in numbers {

      result += number

    }


    return result

}


let result = sum(numbers: [1, 2, 3, 4, 5])
```

Answer

0

15

nil

✅ None of these

☐ **21. Multiple Choice: 1: What are the collection types in Swift?**   Points: 2

Question   What are the collection types in Swift?

Answer   ✅

Dictionary and array

Array and library

Dictionary and library

Library, dictionary and array

☐ **22. Multiple Choice: 2: Swift is which type of language?**   Points: **2**

Question	Swift is which type of language?
Answer	scripting language
	object-oriented programming language
	type safe language
	✅ All of the above

☐ **23. Multiple Choice: To create constants in swift we use k...**   Points: **2**

Question	To create constants in swift we use keyword
Answer	conts
	✅ let

constant

None of the above

24. Multiple Choice: To create mutable object _____...   Points: **2**

Question	To create mutable object _____ is used.
Answer	let
	✅ var
	both a & b
	None

25. Multiple Choice: We can return multiple values ins swi...   Points: **2**

Question	We can return multiple values ins swift from function by using
Answer	Array
	✅ Tuple
	Both a & b
	None of the above

☐ **26. Multiple Choice: What output will be produced by the c...**

Points: 2

Question	What output will be produced by the code below?

```
func fizzbuzz(number: Int) -> String {
    switch (number % 3 == 0, number % 5 == 0) {
    case (true, false):
        return "Fizz"
    case (false, true):
        return "Buzz"
    case (true, true):
        return "FizzBuzz"
    default:
        return String(number)
    }
}

print(fizzbuzz(number: 15))
```

Answer

15

✓ Fizbuzz

0

None of these

☐ **27. Multiple Choice: Which of the following declares a mut...**　　　Points: **2**

Question	Which of the following declares a mutable array in swift.
Answer	Let X =[Int]()
	Var X=[Int]
	✅ Var X=[Int]()
	Let X=[Int]

☐ **28. Multiple Choice: var myStr: String = "0" myStr = "shi...**　　　Points: **2**

Question	var myStr: String = "0" myStr = "shiny" When this code is executed, what is the value of myStr?
Answer	✅ shiny
	1
	0

None of these

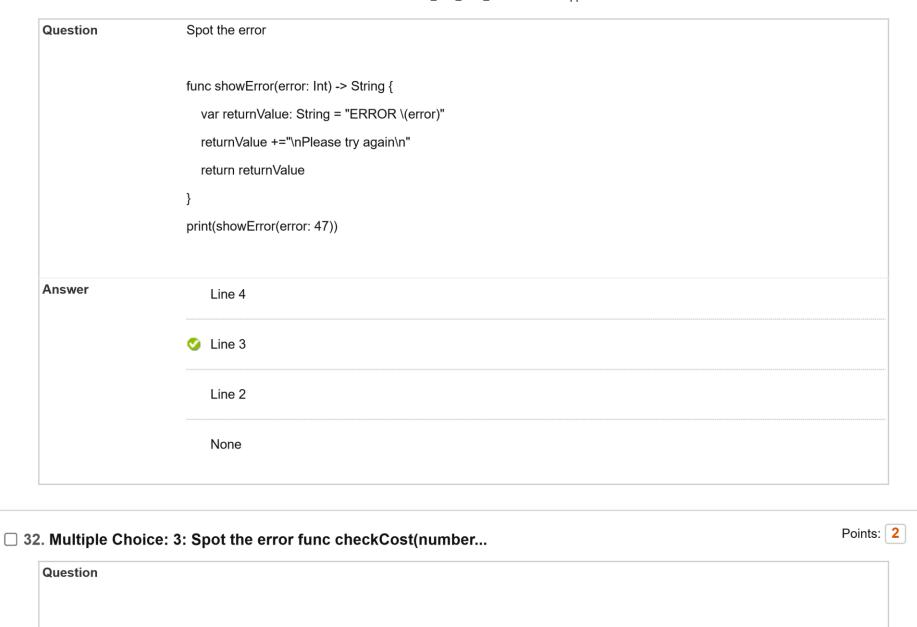□ **29. Multiple Choice: 10: Spot the error   func takeExer...**   Points: **2**

Question   Spot the error

func takeExercise(count: Int, type: String) -> String {

  var returnValue: String = ""

  for _ in 0 ..< count {

    returnValue += "I'm doing a \(type)\n"

  }

  if count < 10 {

    returnValue += "That was easy!"

  } else if count < 30 {

    returnValue += "That was challenging!"

  } else {

    returnValue += "Phew - I need a break!"

  }

  retrun returnValue

}
print(takeExercise(count: 48, type: "squat"))

Answer   Line 11

                              Line 12

Line 9

✅ None

---

30. Multiple Choice: 1: Spot the error func printNameTags(co...   Points: **2**

Question	Spot the error
	func printNameTags(copies: Int, name: String) -> String {
	str: String = ""
	for _ in 1 ... copies {
	str += "\(name)\n"
	}
	return str
	}
	print(printNameTags(copies: 22, name: "Paul Hudson"))

Answer	
	Line 1
	Line 3
	Line 5
	✅ None

---

31. Multiple Choice: 2: Spot the error func showError(erro...   Points: **2**

Question   Spot the error

```
func showError(error: Int) -> String {
    var returnValue: String = "ERROR \(error)"
    returnValue +="\nPlease try again\n"
    return returnValue
}
print(showError(error: 47))
```

Answer

Line 4

✅ Line 3

Line 2

None

☐ **32. Multiple Choice: 3: Spot the error func checkCost(number...**   Points: **2**

Question

Spot the error

```swift
func checkCost(number: Int) {

    var output: String = "Result for \(number) - "

    if number < 10 {

        output += "that seems low"

    } else if number < 20 {

        output += "that's about right"

    } else {

        output += "that seems high"

    }

    return output

}

print(checkCost(number: 9))
```

Answer

✅ Line 10

Line 11

Line 6

None

☐ **33. Multiple Choice: 4: Spot the error   func printRes...**   Points: 2

Question

Spot the error

```
func printResumes(count: Int, name: String) -> String {

    var returnValue: String = ""

    for _ in 1 ... count {

        returnValue += "\(name)\n"

    }

    return returnValue

}

print(printResumes(count: "97", name: "Paul Hudson"))
```

Answer

      Line 1

      Line 3

✅ Line 8

      None

☐ **34. Multiple Choice: 5: Spot the error   func verifyUs...**   Points: **2**

Question

Spot the error

```swift
func verifyUser(id: Int) -> String {
    var returnValue: String = "Found "
    switch id {
    case 0:
        returnValue += "TwoStraws"
    case 1:
        returnValue += "Taylor"
    default:
        returnValue += "nothing for ID \(id)"
    }
    retrun returnValue
}
print(verifyUser(id: 10))
```

Answer

Line 6

Line 8

Line 9

✅ Line 11

☐ **35. Multiple Choice: 6: Spot the error   func checkPre...**   Points: 2

Question   Spot the error

```
func checkPressure(value: Int) -> string {

    var output: String = "Result for \(value) - "

    if value < 10 {

        output += "that seems low"

    } else if value < 20 {

        output += "that's about right"

    } else {

        output += "that seems high"

    }

    return output

}
print(checkPressure(value: 30))
```

Answer

Line 7

Line 9

Line 4

✅ None

☐ **36. Multiple Choice: 7: Spot the error   func writeRev...**   Points: **2**

Question

Spot the error

```
func writeReview(score: Int) -> String {     var

returnValue: String = "SCORE \(score)\n"

switch score {     case 0...20:

    returnValue += "Terrible"

case 21...40:

    returnValue += "Poor"

case 41...60:

    returnValue += "Average"

case 61...80:

    returnValue += "Good"

default:

    returnValue += "Excellent"

  }

  retrun returnValue

}

print(writeReview(score: 37))
```

Answer

Line 11

Line 12

Line 13

✅ None

☐ **37. Multiple Choice: 8: Spot the error   func checkHei...**

Points: **2**

Question	Spot the error

```
func checkHeight(value: Int) -> String {
    var returnValue: String = "Result for \(value) - "
    if value < 10 {
        returnValue += "that seems low"
    } else if value < 20 {
        returnValue += "that's about right"
    } else {
        returnValue += "that seems high"
    }
    return returnValue
}
print(checkHeight(value: "25"))
```

Answer	Line 6
	Line 8
	Line 9
	✅ None

38. Multiple Choice: 9: Spot the error   func shareWin...　　　　Points: 2

Question	Spot the error
	func shareWinnings(people: Int, fairly: Bool) -> String {
	var str: String = "We're going to split this...\n"
	if fairly {
	str += "Everyone gets 1/\(people)"
	} else
	str += "I get half because I deserve it.\n"
	str += "Everyone else can split the remainder."
	}
	return str
	}
	print(shareWinnings(people: 7, fairly: true))

Answer	
	Line 9
	Line 10
	✅ Line 5
	Line 6

☐ 39. Multiple Choice: How many lines will be printed by the...

Points: 2

Question	How many lines will be printed by the code below? import Foundation let data: [Any?] = ["Bill", nil, 69, "Ted"] for datum in data where !(datum is Hashable) { print(datum)
Answer	2
	0
	3
	✅ None of these

☐ 40. Multiple Choice: Which of these is not a val...

Points: 2

Question	Which of these is *not* a valid Swift compilation condition?
Answer	#if arch(...)
	#if canImport(...)
	#if compiler(...)

✅ #if platform(...)

---

41. Multiple Choice: When this code is executed, what will...

<div align="right">Points: 2</div>

Question	When this code is executed, what will example2 be set to?
	var names = [String]()
	names.append("Amy")
	let example1 = names.removeLast()
	let example2 = names.removeLast()

Answer	"Amy"
	Nothing will be output
	✅ This code will compile but crash
	This code will not compile

---

42. Multiple Choice: In the code below, what data type wil...

<div align="right">Points: 2</div>

Question	In the code below, what data type will be assigned to result?
	let result = UInt8.max.addingReportingOverflow(1)

Answer	✅ UInt

UInt8

Tuple

This code will compile but crash

---

43. Multiple Choice: What will result be set to after this...   Points: 2

Question	What will result be set to after this code runs?
	`let result = Result { try String(contentsOfFile: pathToFileThatDoesNotExist) }`

Answer	.success(String)
	✅ .failure(Error)
	This code will compile but crash at runtime
	This code will throw an error

---

44. Multiple Choice: Given the code below, what data type ...   Points: 2

Question	

Given the code below, what data type will be assigned to test?

enum Planet: Int {

   case Mercury = 1

   case Venus

   case Earth

   case Mars

}

let test = Planet(rawValue: 3)

Answer	
	Int
	Int?
	Planet
✅	Planet?

☐ **45. Multiple Choice: When this code is executed, what will...**   Points: **2**
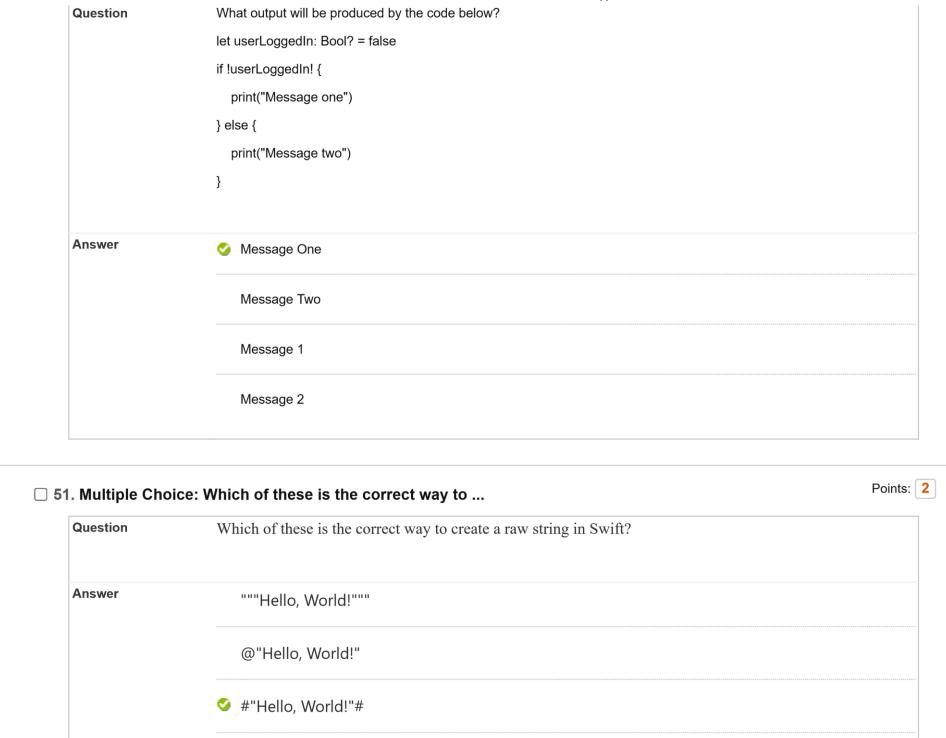
Question

When this code is executed, what will the name value contain?

let i = 11

let j = 20

let name = 9...11 ~= i ? j % 2 == 1 ? "Larry" : "Laura" : "Libby"

Answer	"Larry"
	✅ "Laura"
	"Libby"
	This code will compile but crash

☐ **46. Multiple Choice: When this code is executed, what is t...**   Points: **2**

Question	When this code is executed, what is the value of the swift string? import Foundation let swift = "Hello" let ns = NSString(swift)
Answer	Hello
	Nil
	✅ The code will not compile

The code will compile but crash at runtime.

---

47. Multiple Choice: In the code below, what is the data t...　　　　Points: **2**

Question	In the code below, what is the data type used for result?
	func doStuff() {
	print("Stuff has been done")
	}
	let result = doStuff()

Answer	Int
	Int8
	UInt
	✅ None of these

---

48. Multiple Choice: 12: What is the type of x? let d = ["joh...　　　　Points: **2**

Question	What is the type of x?
	let d = ["john": 23, "james": 24, "vincent": 34, "louis": 29]
	let x = d.sort{ $0.1 < $1.1 }.map{ $0.0 }

Answer	Int

Float

Constant

✅ String

☐ **49. Multiple Choice: 18: Given that we have defined myChar lik...**   Points: **2**

Question	Given that we have defined myChar like so :
	let myChar: Character = "b"
	Which code segment can be considered a complete Switch statement and will run without any error?

Answer	switch myChar { case "a","A": println("The letter A") case "b","B": println("The letter A") }
	switch myChar { case "a": println("The letter A") }
	switch myChar { case "a": case "A": println("The letter A") default: println("Not the letter A") }
	✅ switch myChar { case "a","A": println("The letter A") default: println("Not the letter A") }

☐ **50. Multiple Choice: What output will be produced by the c...**   Points: **2**

Question   What output will be produced by the code below?

let userLoggedIn: Bool? = false

if !userLoggedIn! {

    print("Message one")

} else {

    print("Message two")

}

Answer   ✅ Message One

Message Two

Message 1

Message 2

☐ **51. Multiple Choice: Which of these is the correct way to ...**   Points: **2**

Question   Which of these is the correct way to create a raw string in Swift?

Answer   """Hello, World!"""

@"Hello, World!"

✅ #"Hello, World!"#

Hello, World!

☐ 52. Multiple Choice: When this code is executed, how many ...   Points: **2**

Question	When this code is executed, how many items will the names array contain?

```
var names = [String]()
names.reserveCapacity(2)
names.append("Amy")
names.append("Rory")
names.append("Clara")
```

Answer

2

1

This code will compile but crash

✅ None of the above

☐ 53. Multiple Choice: What output will be produced by the c...   Points: **2**

Question

What output will be produced by the code below?

import Foundation

let crew = NSMutableDictionary()

crew.setValue("Kryten", forKey: "Mechanoid")

print(crew.count)

Answer	
✅	1
	Nothing will be output
	This code will compile but crash
	This code will not compile

☐ **54. Multiple Choice: What output will be produced by the c...**

Points: **2**

Question

What output will be produced by the code below?

```swift
enum MyError: Error {
    case broken
    case busted
    case badgered
}
func willThrowAnError() {
    throw MyError.busted
}
do {
    try willThrowAnError()
} catch MyError.busted {
    print("Code was busted!")
} catch {
    print("Code just didn't work")
```

Answer

"Code was busted!"

Nothing will be output

This code will compile but crash

✅ This code will not compile

Points: 2

55. Multiple Choice: When this code is executed, what will...

Question	When this code is executed, what will it print?
	
	enum Direction: CaseIterable {
	
	   case north, south, east, west
	
	}
	
	print(Direction.allCases.count)

Answer	[.north, .south, .east, .west]
	5
	✅ 4
	This code will not compile

☐ 56. Multiple Choice: Which Swift compiler directive will f...   Points: 2

Question	Which Swift compiler directive will force the compiler to issue an error?
Answer	!error
	$error
	ERROR

✅ #error

---

57. Multiple Choice: What output will be produced by the c...

Points: 2

Question

What output will be produced by the code below?

import Foundation

let number = 16.0

print("\(number) squared is \(number * number), and its square root is \(sqrt(number))")

Answer

"16 squared is 16 * 16, and its square root is sqrt(16)"

"16 squared is 256, and its square root is 4"

✅ "16.0 squared is 256.0, and its square root is 4.0"

This code will compile but crash

---

58. Multiple Choice: What output will be produced by the c...

Points: 2

Question

What output will be produced by the code below?

let oneMillion = 1_000_000

let oneThousand = oneMillion / 0_1_0_0_0

print(oneThousand)

Answer   1000000

1_0_0_0

This code will compile but crash

✅ None of the above

☐ **59. Multiple Choice: You are using a method named willThro...**   Points: 2

Question   You are using a method named willThrowAnError(), and it is marked using throws because it will always throw the error "Forbidden". Given this context, what output will be produced by the code below?

do {

   try willThrowAnError()

} catch {

   print("The error message was: \(error)")

Answer   This code will compile but crash

This code will not compile

Nothing will be output

✅ None of the above

☐ **60. Multiple Choice: What output will be produced by the c...**   Points: **2**

Question	What output will be produced by the code below?

```
let names = ["Amy", "Rory"]

for name in names {

name = name.uppercased()

print("HELLO, \(name)!")

}
```

Answer

"HELLO, AMY!"

"HELLO, AMY!", "HELLO, RORY!"

This code will compile but crash

✅ This code will not compile

Select: <u>All</u> <u>None</u>   Select by Type: [- Question Type - ▾]

[Delete and Regrade]   Points [   ]   [Update and Regrade]   [Hide Question Details]

← **OK**