Dashboard (http://kmitonline.com/student/dashboard.php) / Quiz

Started on	Thursday, 15 May 2025, 12:38 PM
State	Finished
Completed on	Thursday, 15 May 2025, 1:04 PM
Time taken	25 mins 49 secs
Marks	16.00/20.00
Grade	80.00 out of 100.00

5/15/2025, 1:05 PM

Correct

Mark 1.00 out of 1.00

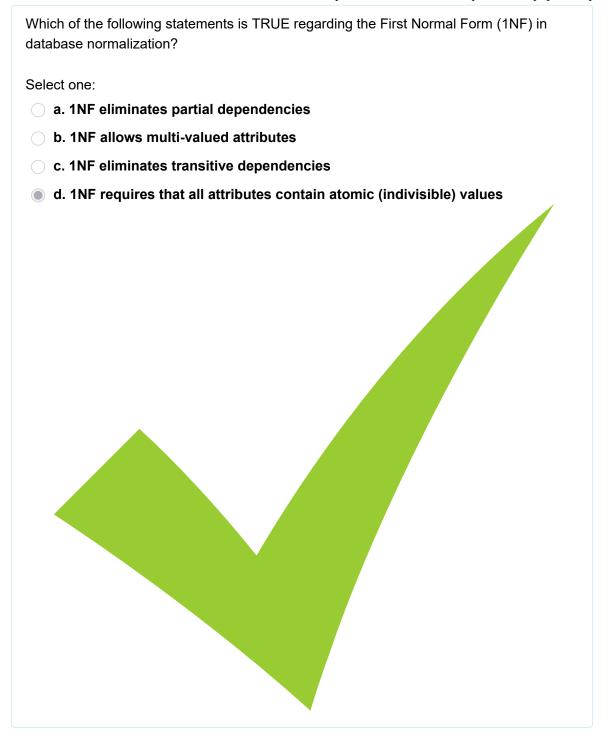


The correct answer is: Waterfall Model

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Correct

Mark 1.00 out of 1.00



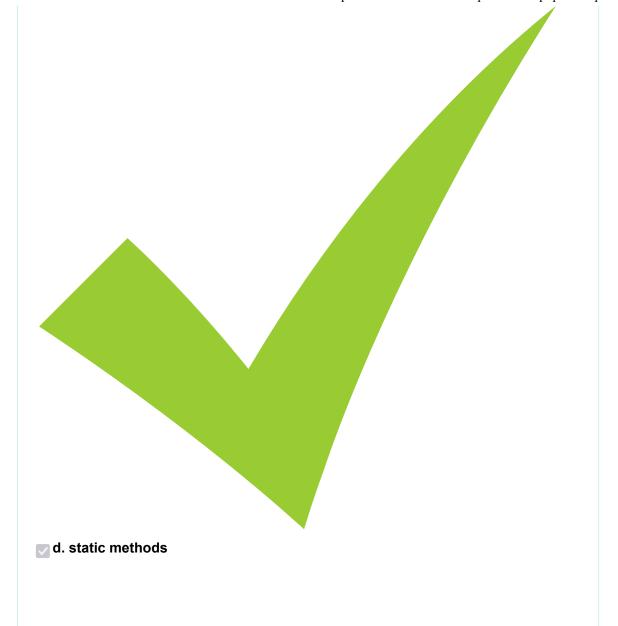
The correct answer is: 1NF requires that all attributes contain atomic (indivisible) values

Question 3 Incorrect

Mark 0.00 out of 1.00



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The correct answer is: private instance methods, static methods, public variables, private variable

Incorrect

Mark 0.00 out of 1.00

```
from collections import deque
def bfs(capacity, flow, s, t, parent):
  visited = [False] len(capacity)
  queue = deque([s])
  visited[s] = True
  while queue:
     u = queue.popleft()
     for v in range(len(capacity)):
       if not visited[v] and capacity[u][v] - flow[u][v] > 0:
          parent[v] = u
          visited[v] = True
          if v == t:
             return True
          queue.append(v)
  return False
def edmonds_karp(capacity, s, t):
  n = len(capacity)
  flow = [[0] n for _ in range(n)]
  parent = [-1] n
  max_flow = 0
  while bfs(capacity, flow, s, t, parent):
     path_flow = float('inf')
     v = t
     while v != s:
       u = parent[v]
       path_flow = min(path_flow, capacity[u][v] - flow[u][v])
       v = u
     v = t
     while v != s:
       u = parent[v]
       flow[u][v] += path_flow
       flow[v][u] -= path_flow
       v = u
```

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```
return max_flow

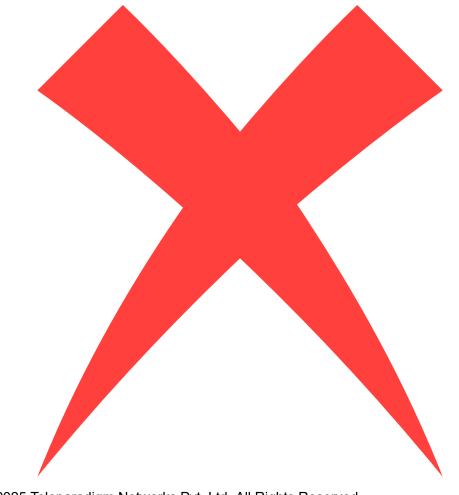
capacity = [
    [0, 10, 10, 0, 0, 0],
    [0, 0, 2, 4, 8, 0],
    [0, 0, 0, 0, 9, 0],
    [0, 0, 0, 6, 0, 10],
    [0, 0, 0, 0, 0, 0]
]

print(edmonds_karp(capacity, 0, 5))
```

What will be the output?

Select one:

a. 14



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Correct

Mark 1.00 out of 1.00

```
class TrieNode:
  def __init__(self):
     self.children = [None] 26
     self.is_end = False
def insert(root, word):
  node = root
  for char in word:
     index = ord(char) - ord('a')
     if not node.children[index]:
       node.children[index] = TrieNode()
     node = node.children[index]
  node.is_end = True
def search(root, word):
  node = root
  for char in word:
     index = ord(char) - ord('a')
     if not node.children[index]:
       return False
     node = node.children[index]
  return node.is_end
root = TrieNode()
insert(root, "code")
insert(root, "coder")
print(search(root, "code"))
print(search(root, "cod"))
What will be printed?
Select one:
a. True, True
b. False, True
c. True, False
```

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The correct answer is: True, False

6

Correct

Mark 1.00 out of 1.00

Which of the following describes the "Isolation" property in the ACID transaction model?

Select one:

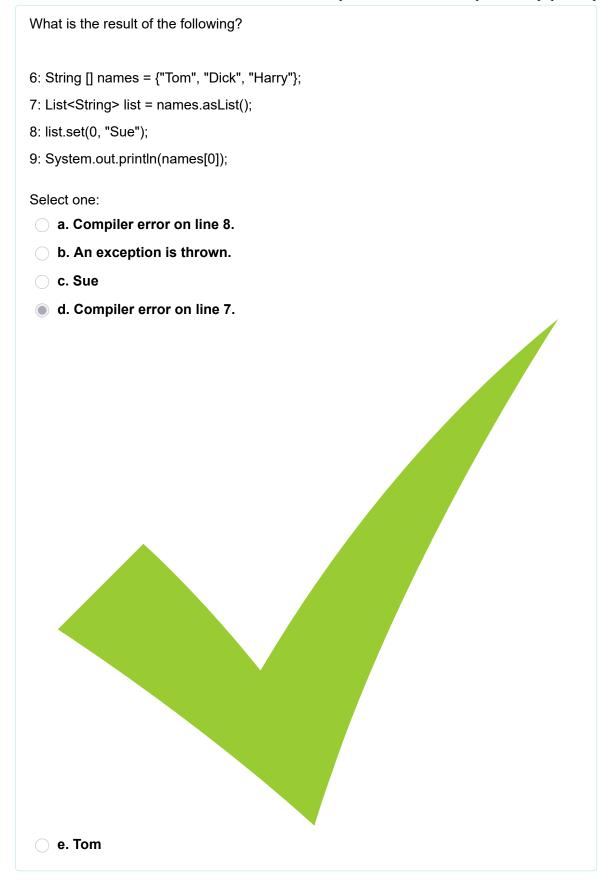
- a. Transactions should be able to access the database at the same time without affecting the integrity of the database
- b. Transactions should leave the database in a consistent state even if the system crashes
- c. Transactions should execute in a way that they appear to be running concurrently but are actually executed one after the other



The correct answer is: Transactions should execute in a way that they appear to be running concurrently but are actually executed one after the other

Correct

Mark 1.00 out of 1.00



The correct answer is: Compiler error on line 7.

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Correct

Mark 1.00 out of 1.00

Given the following SQL query, what will be the result of this subquery? SELECT ProductName **FROM Products** WHERE ProductID IN (SELECT ProductID FROM OrderDetails WHERE Quantity 50); Select one: a. It returns the products ordered more than 50 times b. It returns the products with IDs greater than 50 c. It returns the total quantity of each product in the order details d. It returns the product names that appear in the order details for products with quantities greater than 50

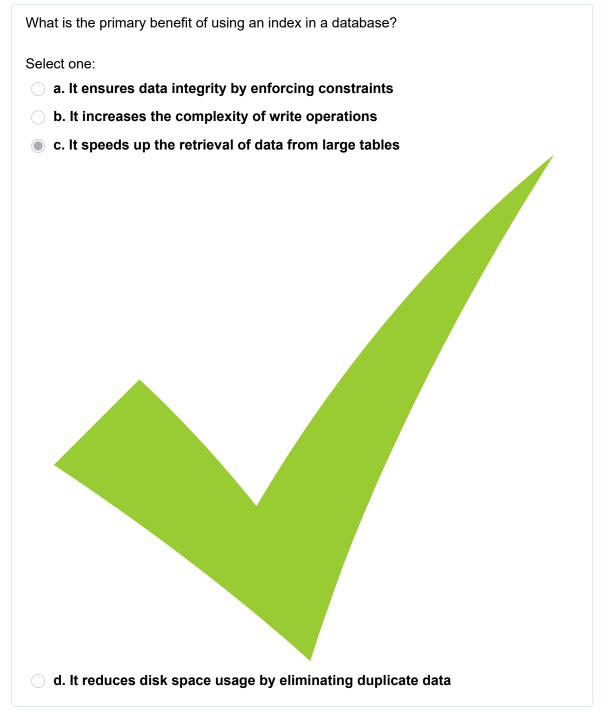
The correct answer is: It returns the product names that appear in the order details for products with quantities greater than 50

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9

Correct

Mark 1.00 out of 1.00

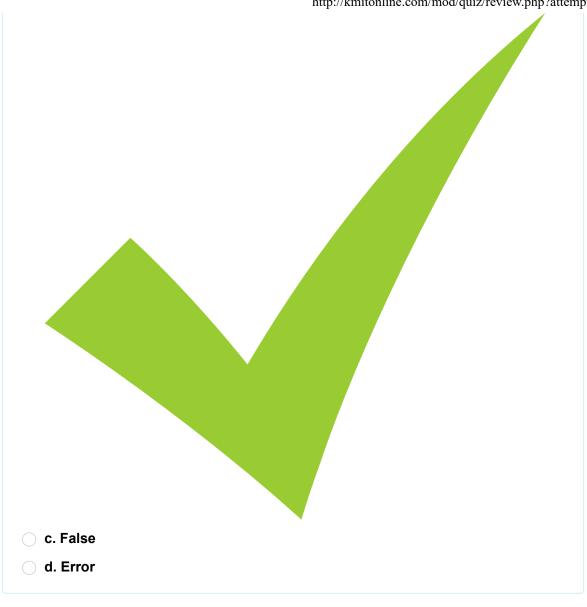


The correct answer is: It speeds up the retrieval of data from large tables

Correct

Mark 1.00 out of 1.00

```
def is_Min_heap(arr, i, n):
  if 2i + 1 >= n:
     return True
  left = 2i + 1
  right = 2i + 2
  if arr[i] > arr[left]:
     return False
  if right < n and arr[i] > arr[right]:
     return False
  return is_Min_heap(arr, left, n) and (right >= n or is_Min_heap(arr, right, n))
arr = [1, 3, 5, 7, 9, 10]
print(is_Min_heap(arr, 0, len(arr)))
What will be printed?
Select one:
 a. None
 b. True
```



The correct answer is: True

Incorrect

Mark 0.00 out of 1.00

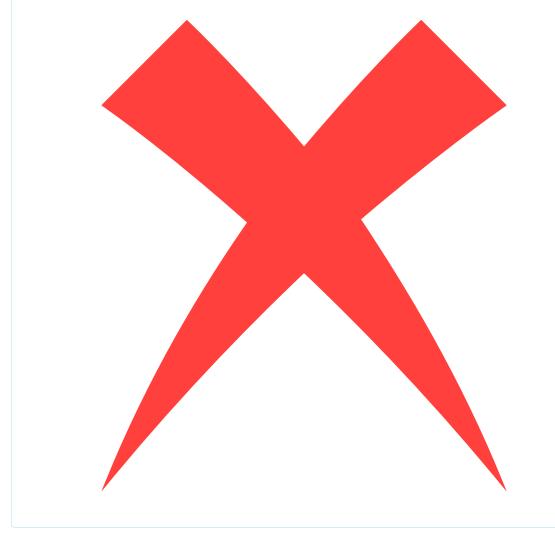
What is the output of the following SQL query?

SELECT Employees.EmployeeID, Employees.Name, Departments.DepartmentName FROM Employees

INNER JOIN Departments ON Employees.DepartmentID = Departments.DepartmentID;

Select one:

- a. Returns departments with no employees assigned
- b. Returns all employees, even if they don't belong to a department
- c. Returns employees who belong to a department, excluding employees without a department
- d. Returns employees and departments, with NULL values where there is no match



The correct answer is: Returns employees who belong to a department, excluding employees without a department Copyright © 2025 Teleparadigm Networks Pvt. Ltd. All Rights Reserved.

Correct

Mark 1.00 out of 1.00



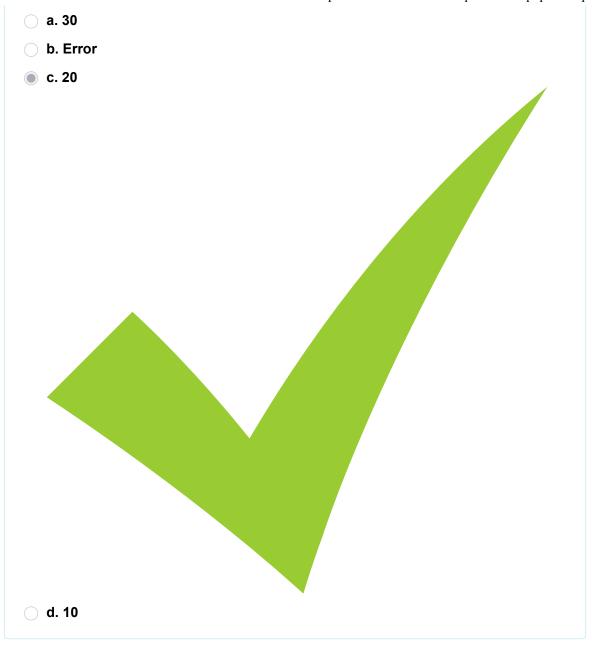
The correct answer is: Slow Start

Correct

Mark 1.00 out of 1.00

```
class Node:
  def __init__(self, val):
     self.val = val
     self.left = None
     self.right = None
     self.height = 1
def get_height(n):
  return n.height if n else 0
def update_height(n):
  n.height = 1 + max(get_height(n.left), get_height(n.right))
def right_rotate(y):
  x = y.left
  T2 = x.right
  x.right = y
  y.left = T2
  update_height(y)
  update_height(x)
  return x
# Constructing an LL case manually:
root = Node(30)
root.left = Node(20)
root.left.left = Node(10)
update_height(root.left.left)
update_height(root.left)
update_height(root)
rotated = right_rotate(root)
print(rotated.val)
What will be the printed output after right rotation?
```

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The correct answer is: 20

Correct

Mark 1.00 out of 1.00

```
What is the result of the following statements?
1: public class Test {
    public void print(byte x) {
3:
      System.out.print("byte");
4:
5:
    public void print(int x) {
      System.out.print("int");
6:
7:
8:
    public void print(float x) {
9:
      System.out.print("float");
10: }
11: public void print(Object x) {
      System.out.print("Object");
12:
13: }
14: public static void main(String[] args) {
15:
      Test t = new Test();
16:
      short s = 123;
17:
      t.print(s);
18:
      t.print(true);
19:
      t.print(6.789);
20: }
```

21:}

Select one:

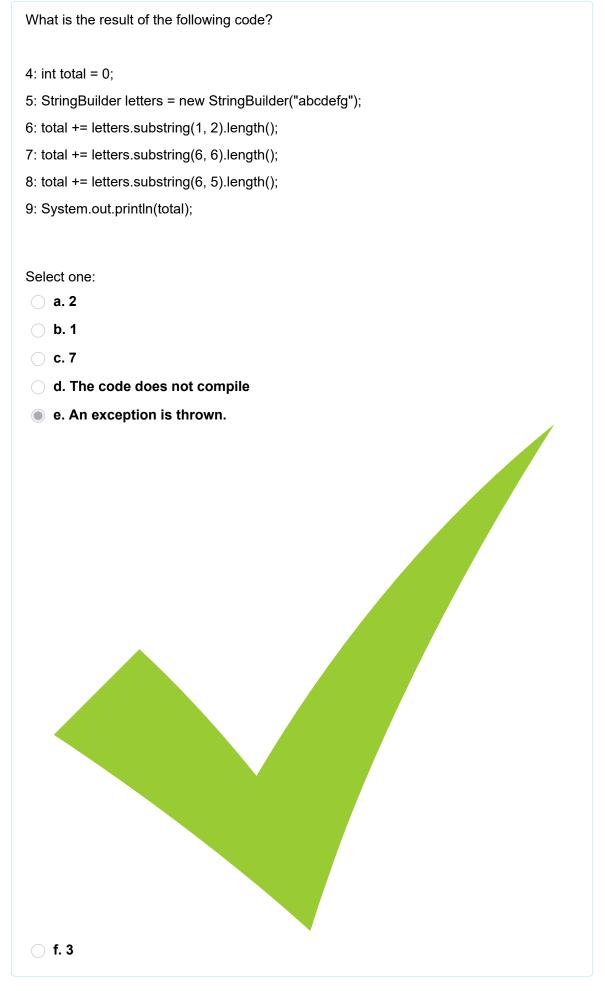
a. intObjectObject



The correct answer is: intObjectObject

Correct

Mark 1.00 out of 1.00



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The correct answer is: An exception is thrown.

Incorrect

Mark 0.00 out of 1.00

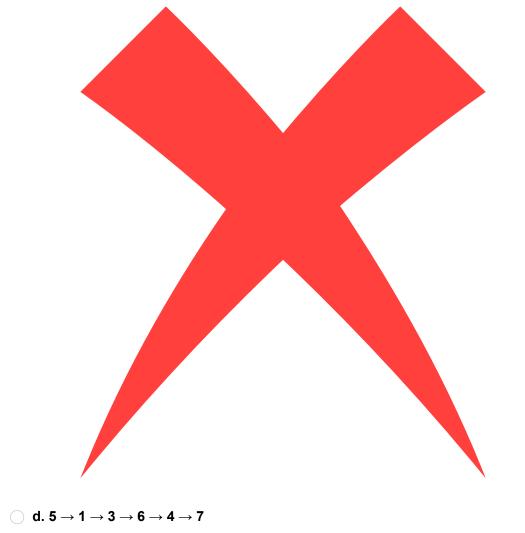
In the defect lifecycle, what is the correct order of these stages?

- 1. Open
- 2. Reopened
- 3. Assigned
- 4. Closed
- 5. New
- 6. Fixed
- 7. Verified

Choose the correct sequence:

Select one:

- $\bigcirc \ a.\ 5 \rightarrow 3 \rightarrow 1 \rightarrow 6 \rightarrow 7 \rightarrow 4$
- $\bigcirc \ \ \, \text{b. 5} \rightarrow \text{1} \rightarrow \text{3} \rightarrow \text{6} \rightarrow \text{7} \rightarrow \text{4}$



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The correct answer is: $5 \rightarrow 3 \rightarrow 1 \rightarrow 6 \rightarrow 7 \rightarrow 4$

Question **17**

Correct

Mark 1.00 out of 1.00

Which type of testing is performed without executing the program?

Select one:

a. Regression Testing

b. White-box Testing

c. Static Testing

The correct answer is: Static Testing

d. Black-box Testing

Correct

Mark 1.00 out of 1.00



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The correct answer is: Encapsulation uses private instance variables., Encapsulation allows setters., Immutability uses private instance variables.

Question 19 Correct Mark 1.00 out of

1.00

Which of the following is NOT a valid state in the Process Life Cycle? Select one: a. New b. Blocked c. Terminating d. Waiting

The correct answer is: Terminating

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Correct

Mark 1.00 out of 1.00

```
def dfs(graph, start, visited=None):
  if visited is None:
     visited = set()
  visited.add(start)
  for neighbor in graph[start]:
     if neighbor not in visited:
        dfs(graph, neighbor, visited)
  return visited
graph = {
  0: [1],
  1: [2],
  2: [0, 3],
  3: []
}
print(dfs(graph, 0))
What will be the output?
Select one:
 a. {0, 2, 3}
```

b. {0, 1, 2, 3}



The correct answer is: {0, 1, 2, 3}