Quiz Details

Quiz Instructions:

Show Question Details

Group 19O

Group Name Pick 1 questions, 1 pts per question Pick ? questions, ? pts per question

Cancel Update

Question 1 pts

Assume `element` is a Selenium WebElement given by `<a href="page.html" target="_blank">link<\a>`. Which of the following returns `"page.html"`?

- element.get_attribute("href")
- element.get_attribute("text")
- element.text
- element.href

Question 1 pts

Assume `element` is a Selenium WebElement given by `<a href="link.html" target="_blank">page<\a>`. Which of the following returns `"link.html"`?

- element.get_attribute("href")
- element.get_attribute("text")
- element.text
- element.href

Group 19O

Group Name Pick 1 questions, 1 pts per question Pick ? questions, ? pts per question

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Question 1 pts

Suppose `element` is an HTML table WebElement with 3 rows and 3 columns, which of the following code finds the text in the last cell of the first row in the table?

- element.find_element("tag name", "tr").find_elements("tag name", "td")[2].text
- element.find_elements("tag name", "tr")[2].find_elements("tag name", "td")[2].text
- element.find_elements("tag name", "tr")[2].find_element("tag name", "td").text
- element.find_element("tag name", "tr").find_element("tag name", "td").text

Question 1 pts

Suppose `element` is an HTML table WebElement with 3 rows and 3 columns, which of the following code finds the text in the first cell of the last row in the table?

- element.find_elements("tag name", "tr")[2].find_element("tag name", "td").text
- element.find_elements("tag name", "tr")[2].find_elements("tag name", "td")[2].text
- element.find_element("tag name", "tr").find_elements("tag name", "td")[2].text
- element.find_element("tag name", "tr").find_element("tag name", "td").text

Group 20O

Group Name Pick 1 questions, 1 pts per question Pick ? questions, ? pts per question

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Question 1 pts

Suppose the following nodes are in the priority queue, `{node: "A", g: 1, h: 10}`, `{node: "B", g: 3, h: 7}`, `{node: "C", g: 5, h: 3}`, `{node: "D", g: 7, h: 2}`, where "g" represents the distance from the initial node and "h" represents an admissible heuristic (estimated distance to the goal node). Which node will A* search check next?

- "C"
- "B"
- "A"
- "D"

Question 1 pts

Suppose the following nodes are in the priority queue, `{node: "A", g: 1, h: 10}`, `{node: "B", g: 3, h: 7}`, `{node: "C", g: 5, h: 3}`, `{node: "D", g: 7, h: 2}`, where "g" represents the distance from the initial node and "h" represents an admissible heuristic (estimated distance to the goal node). Which node will best first greedy search check next?

- "D"
- "C"
- "B"
- "A"

Group 20P

Group Name Pick 1 questions, 1 pts per question Pick ? questions, ? pts per question

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Question 1 pts

There are infinite number of web pages labeled by `(0, 0), (0, 1), (0, 2), ..., (1, 0), (1, 1), ...` and page `(i, j)` contains links to pages `(i + 1, j)` and `(i, j + 1)`. Suppose we start at page `(0, 0)` and the goal is to find page `(10, 10)`, which one of the following search heuristic is NOT admissible?

- h((i, j)) = 1
- h((i, j)) = 0
- h((i, j)) = |10 - i| + |10 - j|
- h((i, j)) = max(|10 - i|, |10 - j|)

Question 1 pts

There are infinite number of web pages labeled by `(0, 0), (0, 1), (0, 2), ..., (1, 0), (1, 1), ...` and page `(i, j)` contains links to pages `(i + 1, j)` and `(i, j + 1)`. Suppose we start at page `(0, 0)` and the goal is to find page `(10, 10)`, which one of the following search heuristic is NOT admissible?

- h((i, j)) = 1

- h((i, j)) = 0
- h((i, j)) = |10 - i| + |10 - j|
- h((i, j)) = min(|10 - i|, |10 - j|)

Question 1 pts

There are infinite number of web pages labeled by `(0, 0), (0, 1), (0, 2), ..., (1, 0), (1, 1), ...` and page `(i, j)` contains links to pages `(i + 1, j)` and `(i, j + 1)`. Suppose we start at page `(0, 0)` and the goal is to find page `(10, 10)`, which one of the following search heuristic is NOT admissible?

- h((i, j)) = 1
- h((i, j)) = 0
- h((i, j)) = |10 - i| + |10 - j|
- h((i, j)) = min(|10 - i|, |10 - j|)

Group 21O

Group Name Pick 1 questions, 1 pts per question Pick ? questions, ? pts per question

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Question 1 pts

Which of the following is a correct query string for route `data` that produces `dict(flask.request.args) = {"from": "A", "to": "B"}`

- IP:5000/data?from=A&to=B
- IP:5000/data?from="A"&to="B"
- IP:5000/data?from=A,to=B
- IP:5000/data?from="A",to="B"

Question 1 pts

Which of the following is a correct query string for route `data` that produces `dict(flask.request.args) = {"from": "B", "to": "A"}`

- IP:5000/data?from=B&to=A
- IP:5000/data?from="B"&to="A"
- IP:5000/data?from=B,to=A
- IP:5000/data?from="B",to="A"

Group 21O

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Question 1 pts

What URL should be visited to get the page that displays "aaa"?

```
@app.route("/aaa")
def aaa():
  return "bbb"


@app.route("/")
def bbb():
  return "aaa"
```

- http://127.0.0.1:5000/

- http://127.0.0.1:5000/aaa
- http://127.0.0.1:5000/index
- http://127.0.0.1:5000/bbb

Question 1 pts

What URL should be visited to get the page that displays "bbb"?

```
@app.route("/aaa")
def aaa():
  return "bbb"


@app.route("/")
def bbb():
  return "aaa"
```

- http://127.0.0.1:5000/aaa
- http://127.0.0.1:5000/
- http://127.0.0.1:5000/index
- http://127.0.0.1:5000/bbb

Group 21N

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Question 1 pts

Which of the following types of visitor information can be found based on `flask.request.remote_addr`?

- Service provider
- Browser information
- Operating system
- Device information

Question 1 pts

Which of the following types of visitor information can be found based on `flask.request.remote_addr`?

- Location information
- Browser information
- Operating system
- Device information

Group 21N

Group Name Pick 1 questions, 1 pts per question Pick ? questions, ? pts per question

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Question 1 pts

In a Flask app, `app.route("/index/<x>")` binds the function `index(x)` `return x`. What will visits to "/index/2?x=1" display?

- 2
- 1
- (Error)

- (Status Code 404)

Question 1 pts

In a Flask app, `app.route("/index/<x>")` binds the function `index(x)` `return x`. What will visits to "/index/1?x=2" display?

- 1
- 2
- (Error)
- (Status Code 404)

Group 22O

Group Name Pick 1 questions, 1 pts per question Pick ? questions, ? pts per question

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Question 1 pts

Suppose the total number of visits to version A and version B pages are fixed, say at 100 and 100. Which of the following will result in the smallest p-value for an A/B test?

- 100 clicks on A, 0 clicks on B
- 50 clicks on A, 50 clicks on B
- 25 clicks on A, 75 clicks on B
- 0 clicks on A, 50 clicks on B

Question 1 pts

Suppose the total number of visits to version A and version B pages are fixed, say at 100 and 100. Which of the following will result in the smallest p-value for an A/B test?

- 0 clicks on A, 100 clicks on B
- 50 clicks on A, 50 clicks on B
- 75 clicks on A, 25 clicks on B
- 50 clicks on A, 0 clicks on B

Group 22O

Group Name Pick 1 questions, 1 pts per question Pick ? questions, ? pts per question

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Question 1 pts

When analyzing three contingency tables from an A/B test, `scipy.stats.fisher_exact(df)` returns 0.005 for table 1, 0.05 for table 2, and 0.5 for table 3. At a threshold for significance of 10 percent, for how many tests do we have statistically significant evidence that B has a different click-through-rate than A?

- 2
- 1
- 0
- 3

Question 1 pts

When analyzing three contingency tables from an A/B test, `scipy.stats.fisher_exact(df)` returns 0.002 for table 1, 0.02 for table 2, and 0.2 for table 3. At a threshold for significance of 10 percent, for how many tests do we have statistically significant evidence that B has a different click-through-rate than A?

- 2
- 1
- 0
- 3

Group 22P

Group Name Pick 1 questions, 1 pts per question Pick ? questions, ? pts per question

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Question 1 pts

If the current average click through rates from versions A, B, C of the page are the same, and the numbers of visits to A, B, C are 10, 20, 30, respectively, which version with the UCB1 (upper confidence bound) algorithm display next?

- A
- C
- A, B, C with equal probability
- Depends on the variance

Question 1 pts

If the current average click through rates from versions A, B, C of the page are the same, and the numbers of visits to A, B, C are 30, 20, 10, respectively, which version with the UCB1 (upper confidence bound) algorithm display next?

- C
- A
- A, B, C with equal probability
- Depends on the variance

Group 23O

Group Name Pick 1 questions, 1 pts per question Pick ? questions, ? pts per question

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Question 1 pts

How many of the following visual encodings are more suitable for categorical data columns over ordinal data columns: (1) size, (2) shape (style), (3) color value (lightness or brightness), (4) color hue, (5) texture (different patterns inside a shape).

- 3
- 1
- 2
- 4

Question 1 pts

How many of the following visual encodings are more suitable for ordinal data columns over categorical data columns: (1) size, (2) shape (style), (3) color value (lightness or brightness), (4) color hue, (5) texture (different patterns inside a shape).

- 2
- 1
- 3
- 4

Group 23P

Group Name Pick 1 questions, 1 pts per question Pick ? questions, ? pts per question

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Question 1 pts

In a `DataFrame` with columns `c1`, `c2`, `c3`, `c4` containing categorical data with 2, 3, 4, 5 categories respectively, how many subplots (axes) will `seaborn.relplot(data, x = "c1", y = "c2", col= "c3", row = "c4")` make?

- 20
- 6
- 1
- 12

Question 1 pts

In a `DataFrame` with columns `c1`, `c2`, `c3`, `c4` containing categorical data with 5, 4, 3, 2 categories respectively, how many subplots (axes) will `seaborn.relplot(data, x = "c1", y = "c2", col= "c3", row = "c4")` make?

- 6
- 20
- 1
- 12

Group 24O

Group Name Pick 1 questions, 1 pts per question Pick ? questions, ? pts per question

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Question 1 pts

Which of the following `transform` will give you the circle that looks the largest on the screen?

```
fig, ax = plt.subplots()
ax.set_xlim(0, 2)
ax.set_ylim(0, 2)
circle = plt.Circle((0.5, 0.5), 0.5, transform = ??)
??.add_artist(circle)
```

- fig.transFigure
- ax.transAxes
- ax.transData
- (two of the choices have the same largest size)

Question 1 pts

Which of the following `transform` will give you the circle that looks the smallest on the screen?

```
fig, ax = plt.subplots()
ax.set_xlim(0, 2)
ax.set_ylim(0, 2)
circle = plt.Circle((0.5, 0.5), 0.5, transform = ??)
??.add_artist(circle)
```

- ax.transData
- ax.transAxes
- fig.transFigure
- (two of the choices have the same smallest size)

Group 24P

Group Name Pick 1 questions, 1 pts per question Pick ? questions, ? pts per question

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Question 1 pts

If the quadratic Bezeir curve `matplotlib.patches.FancyArrowPatch((10, 10), (0, 0), connectionstyle=ConnectionStyle.Angle3(135, 90)` has three control points `(10, 10), (a, b), (0, 0)`, what is the value of `(a, b)`?

- (0, 20)
- (10, 0)
- (0, 10)
- (20, 0)

Question 1 pts

If the quadratic Bezeir curve `matplotlib.patches.FancyArrowPatch((10, 10), (0, 0), connectionstyle=ConnectionStyle.Angle3(-45, 0)` has three control points `(10, 10), (a, b), (0, 0)`, what is the value of `(a, b)`?

- (20, 0)
- (10, 0)
- (0, 10)
- (0, 20)

Group 25O

Group Name Pick 1 questions, 1 pts per question Pick ? questions, ? pts per question

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Question 1 pts

Which of the following does NOT produce a square if `x = shapely.geometry.box(0, 0, 4, 4)`, `y = shapely.geometry.box(1, 1, 3, 3)`?

- (All other choices produce a square)
- x.union(y)
- x.convex_hull
- x.intersection(y)

Question 1 pts

Which of the following does NOT produce a square if `x = shapely.geometry.box(0, 0, 2, 2)`, `y = shapely.geometry.box(1, 1, 3, 3)`?

- x.union(y)
- x.intersection(y)
- x.convex_hull
- (All other choices produce a square)

Group 25N

Group Name Pick 1 questions, 1 pts per question Pick ? questions, ? pts per question

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Question 1 pts

If `x = shapely.box(0, 0, 1, 1)` and `y = shapely.box(a, b, c, d)` for some `a < c, b < d`, `z = x.union(y)` what is the maximum number of vertices the polygon `z` will have?

- 8
- 6
- 4
- 1

Question 1 pts

If `x = shapely.box(0, 0, 1, 1)` and `y = shapely.box(a, b, c, d)` for some `a < c, b < d`, `z = x.union(y)` what is the minimum number of vertices the polygon `z` will have?

- 4
- 6
- 8
- 1

Group 26O

Group Name Pick 1 questions, 1 pts per question Pick ? questions, ? pts per question

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Question 1 pts

What will be `len(matches)` given the code below? (Note there is no space between `CS` and `320`)

```
courses = "CS320, CS 368, CS 540, CS 559"
matches = re.findall("([A-Z]+)(\d{3})", courses)
```

- 1
- 2
- 3
- 0

Question 1 pts

What will be `len(matches)` given the code below? (Note there is no space between `CS` and `320`)

```
courses = "CS320, CS 368, CS 540, CS 559"
```

```
matches = re.findall("([A-Z]+)\s(\d{3})", courses)
```

- 3
- 2
- 1
- 0

Group 26N

Group Name Pick 1 questions, 1 pts per question Pick ? questions, ? pts per question

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Question 1 pts

What does this line output `re.sub(r"(((\d)\d)\d)", "\g<3>\g<2>\g<1>", "123 320")`?

- "112123 332320"
- "321 023"
- "123121 320323"
- "123 320 12 32 1 3"

Question 1 pts

What does this line output `re.sub(r"(((\d)\d)\d)", "\g<3>\g<2>\g<1>", "320 123")`?

- "332320 112123"
- "023 321"
- "320323 123121"
- "320 123 32 12 3 1"

Group N

Group Name Pick 1 questions, 1 pts per question Pick ? questions, ? pts per question

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Unanswered

Question 1 pts

If you think any of the questions are not clear or incorrect, please explain here; otherwise, enter "none". Please do not leave the answer blank: