```
Code
```

In [2]:
```python
import numpy as np
import matplotlib.pyplot as plt
from sklearn.linear_model import Perceptron
```

In [3]:
```python
np.random.seed(0)
x1=np.random.uniform(1, 10, 50)
x2=np.random.uniform(1, 10, 50)
x=np.column_stack((x1, x2))
```

In [9]:
```python
y=(x1 < x2).astype(int)
```

In [10]:
```python
perceptron = Perceptron(max_iter=1000, tol=1e-3)
perceptron.fit(x, y)
```

Out[10]: Perceptron()

In a Jupyter environment, please rerun this cell to show the HTML representation or trust the notebook.
On GitHub, the HTML representation is unable to render, please try loading this page with nbviewer.org.

In [13]:
```python
xx, yy = np.meshgrid(np.linspace(0, 11, 100), np.linspace(0, 11, 100))
z = perceptron.predict(np.c_[xx.ravel(), yy.ravel()])
z=z.reshape(xx.shape)
```

In [15]:
```python
plt.contourf(xx, yy, z, alpha=0.3, cmap="coolwarm")
plt.scatter(x1[y == 1], x2[y == 1], color='blue', label="Rider A gets order (1)")
plt.scatter(x1[y == 0], x2[y == 0], color='red', label="Rider B gets order (0)")
plt.xlabel("Rider A's Distance")
plt.ylabel("Rider B's Distance")
plt.legend()
plt.title("Perceptron Decision Region for Order Assignment")
plt.show()
```