```
1.0000 - val_loss: 1.0865 - val_accuracy: 0.5283
Epoch 50/50
41/41 [==============================] - 0s 7ms/step - loss: 0.0196 - accuracy:
1.0000 - val_loss: 1.0933 - val_accuracy: 0.5283
```

5 Evaluate Model

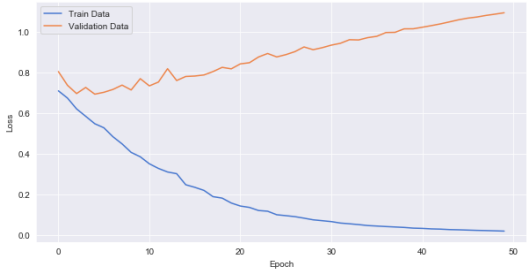
Observe loss and accuracy plots for train and validation data.

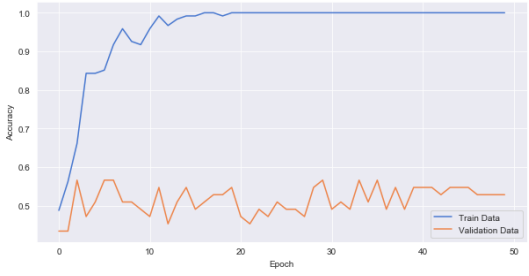
Awful, look up new strategies / approaches to improve model.

[88]:
```
plt.figure(figsize=(22, 5))
plt.subplot(1, 2, 1)
plt.plot(model_training.history['loss'])
plt.plot(model_training.history['val_loss'])
plt.ylabel('Loss')
plt.xlabel('Epoch')
plt.legend(['Train Data', 'Validation Data'])


plt.subplot(1, 2, 2)
plt.plot(model_training.history['accuracy'])
plt.plot(model_training.history['val_accuracy'])
plt.ylabel('Accuracy')
plt.xlabel('Epoch')
plt.legend(['Train Data', 'Validation Data'])


plt.show()
```





Obtain predictions and accuracy on Test data.

[89]:
```
model.predict(X_test)
```

[89]:
```
array([[8.2091832e-01],
       [2.5890559e-02],
       [3.8709021e-01],
```