Started on	Monday, 27 January 2025, 12:08 PM
State	Finished
Completed on	Monday, 27 January 2025, 12:16 PM
Time taken	7 mins 38 secs

Question 1

Complete

Marked out of 1.00

What is the purpose of running the training loop for multiple epochs?

- a. To evaluate the model's performance
- b. To compute the validation accuracy
- c. To avoid overfitting on the training data
- d. To allow the model to repeatedly update weights and minimize loss

Question 2

Complete

Marked out of 1.00

How does the batch_size parameter affect training in RNNs?

- a. It specifies the length of the input sequence.
- b. It determines the number of sequences processed simultaneously.
- c. It controls the optimizer's learning rate.
- d. It sets the number of RNN layers.

Question 3

Complete

Marked out of 1.00

What is the purpose of the nn.Linear layer in the RNN model?

- a. To combine multiple layers of the RNN
- b. To map the RNN output to the desired output size
- c. To initialize the hidden state
- d. To add non-linearity to the model

Question 4

Complete

Marked out of 1.00

In the prediction loop, why is torch.no_grad() used?

- a. To prevent gradient computation for faster inference
- b. To initialize the model's parameters
- c. To enable backpropagation
- d. To update the weights during prediction

Question 5

Complete

Marked out of 1.00

In the training loop, why is optimizer.zero_grad() used before computing the loss?

- a. To speed up the training process
- b. To reset the model parameters
- c. To initialize the loss value
- d. To clear gradients from the previous iteration

Question 6

Complete

Marked out of 1.00

Why do RNNs struggle with long-term dependencies?

- a. Due to insufficient training data
- b. Because they cannot process sequential data
- c. Because they require higher-dimensional input features
- d. Due to vanishing and exploding gradient problems

Question 7

Complete

Marked out of 1.00

What is the purpose of pred.unsqueeze(-1) in the prediction loop?

- a. To convert a scalar to a tensor
- b. To stack multiple predictions together
- c. To reshape the prediction to match the sequence input shape
- d. To add a batch dimension

Question 8

Complete

Marked out of 1.00

What does the hidden_size parameter in the RNN layer define?

- a. Number of time steps in the sequence
- b. Number of features in the hidden state output
- c. Number of features in the input sequence
- d. Number of layers in the RNN

Question 9

Complete

Marked out of 1.00

Which of the following best describes the role of the learning rate?

- a. It sets the batch size during training.
- b. It determines how quickly the loss is computed.
- c. It controls the step size during gradient descent.
- d. It decides the number of epochs for training.

Question 10

Complete

Marked out of 1.00

What does the loss function nn.MSELoss() indicate in this context?

- a. It ensures the weights are normalized.
- b. It calculates the difference between actual and predicted classes.
- c. It penalizes predictions far from the mean.
- d. It measures the squared difference between actual and predicted values.