FOURTH QUIZ ANSWERS

COSC 6360

November 12, 2018

WHITE QUIZ

First question

- How does Sprite LFS recover its i-map after a crash?

First question

- How does Sprite LFS recover its i-node map after a crash?

  - *Sprite LFS recovers first the addresses of the i-node table blocks as they were recorded in the last checkpoint*
  - *It then scans through the log segments that were written after the last checkpoint and uses that information to update its i-node map*

Second question

- Why did the designers of NFS decide to make their *requests idempotent*?

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- Why did the designers of NFS decide to make their *requests idempotent*?

  - ☐ *Because it was necessary in order to have stateless servers.*

  - ☐ *Because it allowed unlimited retries for NFS requests*

Third question

- Why do NFS servers implement a *write-through policy*?

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  - ☐ *It was the only choice that let the server remain stateless.*
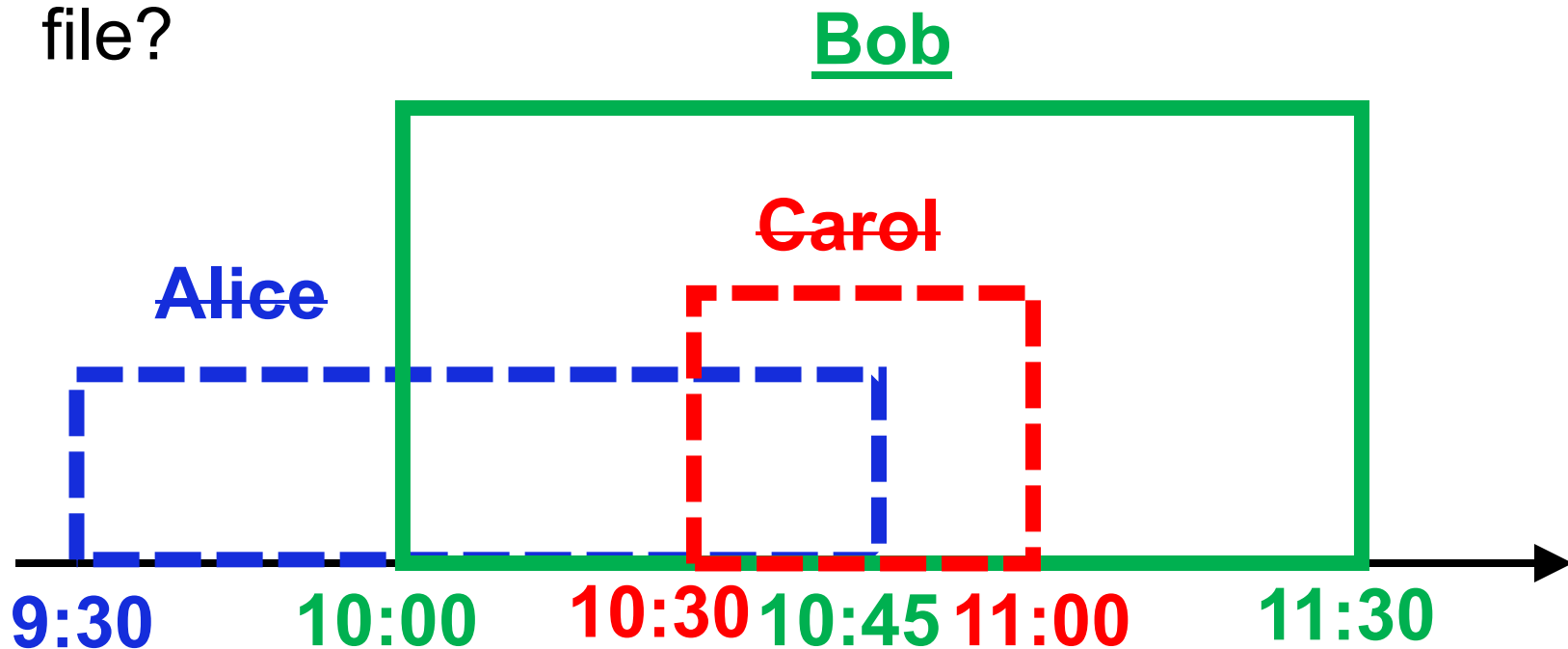
Fourth question

- Consider a distributed file system implementing close-to-open consistency. Assuming that
  - Alice opens the file at 9:30 AM, modifies it and closes it at 10:45 AM,
  - Bob opens the file at 10:00 AM, modifies it and closes it at 11:30 AM,
  - Carol opens the file at 10:30 AM, modifies it and closes it at 11:00 AM,

Fourth question

- Which of these three users would see his or her changes incorporated in the final version of the file?

Fifth question

- What is the main drawback of the so-called *infinite leases*?

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  - ☐ *They let servers break up leases when the client that hold the lease cannot be reached*
  - ☐ *They do not guarantee data consistency*

Sixth question

- What should a server do when it tries to break a lease and gets no answer from the current lease holder?

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- What should a server do when it tries to break a lease and gets no answer from the current lease holder?

  - *It waits until the lease expires before granting another lease*

Seventh question

- What is the **purpose** of **dynamic subtree partitioning** in the Ceph metadata server?

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  - ☐ *To avoid hot spots*

Eighth question

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  - *It specifies its service level agreements for very high quantiles (99.99%) of the user response time*

OTHER QUIZ

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  - *It then scans through the log segments that were written after the last checkpoint and uses that information to update its i-node map*

Second question

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- Why did the designers of NFS decide to make their servers *stateless*?

  - ☐ *To make them more robust*
  - ☐ *To let them recover seamlessly from crashes*

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  - ☐ ***It was the only choice that let the server remain stateless***
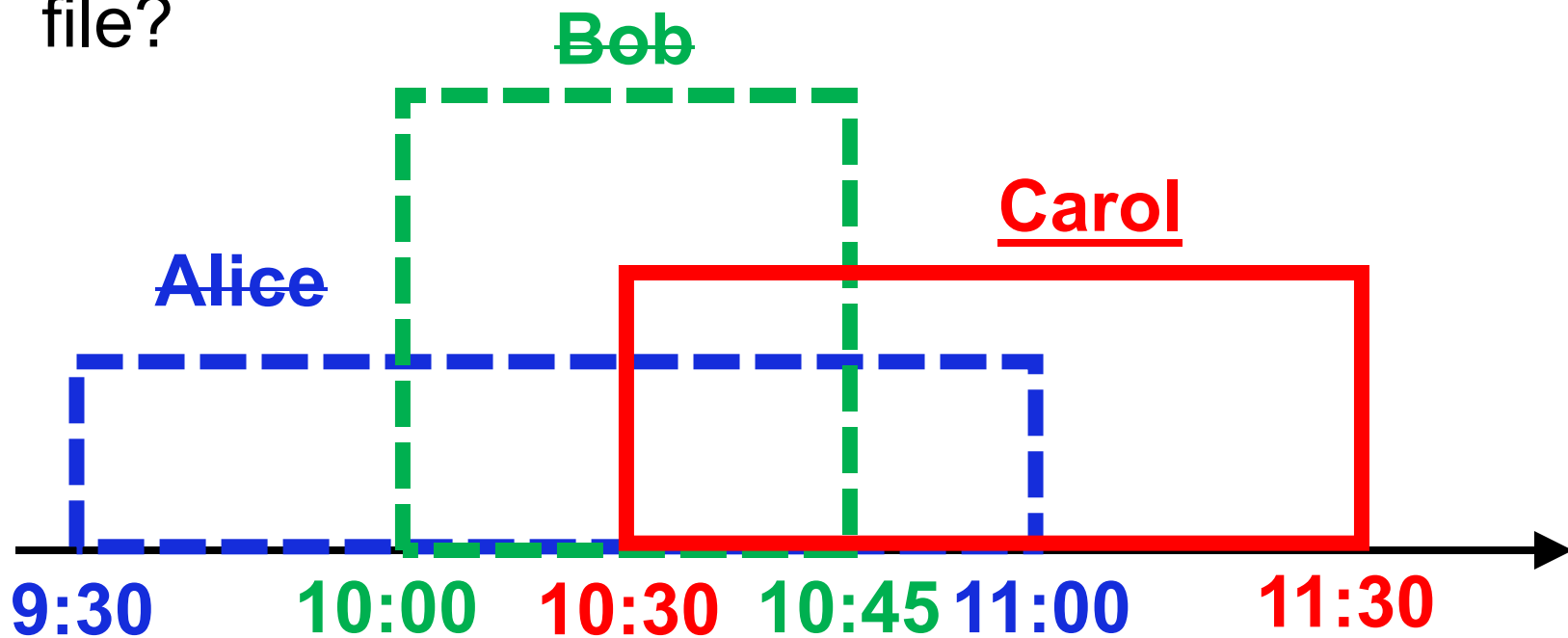
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- What is the main advantage of **long leases**?

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  - ☐ *Long leases reduces the lease renewal overhead*
  - ☐ *Less frequent lease renewals*

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  - *It should acknowledge the request and invalidate the contents of its cache*

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  - *Because they wanted to know when object updates were safely committed on disk and journaling was deemed to be too costly*