

Question 1

Correct Note de 1,00 sur 1,00

At-least-once delivery in a stream processing system is a guarantee that messages will be transmitted until they are received.

(Bareme : -33% per answer incorrectly selected).

Veillez choisir au moins une réponse.

- ☐ a.
I don't know (no point, no penalty)
- ☐ b.
- ☒ c. True ✓
- ☐ d. False

Votre réponse est correcte.

La réponse correcte est :

True

Question 2

Correct Note de 1,00 sur 1,00

On my computer (on which a docker engine is installed and running, etc..., and after possibly some other instructions)

I first write in a console (which does not return an error message)

bgroz@macbookpro:/# **docker exec -it c bash**

Then after this in the console I obtain after executing the instruction, we type:

root@fcc11a4bc749:/# **docker ps**

(Bareme : -25% per answer incorrectly selected).

Veillez choisir une réponse.

- ☒ a. we will most probably get an error indicating that command docker is not found ✓

- ☐ b. we will most probably get a list of containers which includes c and all other active containers
- ☐ c. we will most probably get a list of containers which includes c and all other containers, whether active or not.
- ☐ d. we will most probably get a list of containers which includes ps and all other active containers
- ☐ e. I don't know (no point, no penalty)

Votre réponse est correcte.

La réponse correcte est :

we will most probably get an error indicating that command docker is not found


Question 3

Correct Note de 1,00 sur 1,00

In the context of a streaming system such as Spark streaming, "event time" refers to the time at which the data event is received by Spark's processor event engine: a record with a lower event time will thus be processed before records with higher event times.

(Bareme : from -16.67% if incorrect selection).

Veillez choisir une réponse.

- ☐ a. I don't know (no point, no penalty)
- ☒ b. No  Event time is to be distinguished from processing time. Event time typically plays a role on how data is grouped for agregation, but it's processing time is which indicate when data is processed
- ☐ c. True

☐ d.

Votre réponse est correcte.

La réponse correcte est :

No

Question 4


Correct Note de 1,00 sur 1,00

One of the issues in streaming data is the speed of data and the lack of space to keep the entire dataset offline (in memory).

In this context, there are several trade-offs that are needed when designing algorithms on data streams. Please select below which trade-offs apply.

(Bareme : from -10% to -33% per answer incorrectly selected).

Veuillez choisir au moins une réponse.

- ☒ a. A typical streaming algorithm would sacrifice accuracy for less storage space.  yes because there typically is too much data for storing the whole data
- ☐ b. A typical streaming algorithm would not make any trade-offs.

- ☐ c. A typical streaming algorithm would sacrifice response time for better accuracy.
- ☒ d. A typical streaming algorithm would sacrifice accuracy for faster response time. ✓ yes we may have to provide very fast answers to manage the incoming bandwidth.
- ☐ e. A typical streaming algorithm would sacrifice space used for better accuracy.

Votre réponse est correcte.

Les réponses correctes sont :

A typical streaming algorithm would sacrifice accuracy for faster response time.,

A typical streaming algorithm would sacrifice accuracy for less storage space.