Focus Group Study Script



Objective

What?

Evaluate the adoption of the branching model for the development of an artificial intelligence model.

As?

By carrying out a focus group with members of the team responsible for developing the artificial intelligence module, within the Quati Saúde system.

For what?

For information on branching model acceptance, change request review criteria and policies, and to understand the changes made by the team, the reasons for those changes, the challenges, and the benefits offered by the branching model - as seen by AI team members.

Moderator and Assistant Checklist

- The moderator should act in a neutral manner, without making suggestions during discussions or interrupting participants' arguments. The focus of the focus group is to extract as much information as possible from the discussions between participants, without making participants feel uncomfortable or biased.
- The moderator needs to focus on leading the conversation, notes should be taken by whoever is assisting him/her. Never interrupt the conversation.

conversation or ask the participant to wait for a while to to write down.

- The moderator must ensure that the points presented by the participants are clear, and may paraphrase points discussed so that they are better understood.
- The moderator is responsible for capturing the most important points presented by the
 participants, exploring in greater depth the most enriching discussions for research and
 improvement of the model offered.
- The moderator should be aware of the participants' exhaustion. If the focus group is taking too long, a short break can be taken between sections.
- The moderator should seek to provide as much positive reinforcement as possible to the research participants. He/she should praise the team's engaged participation. If the focus group is held in person, a "snack" can be offered AFTER THE END OF THE FOCUS GROUP or DURING BREAKS CLOSER TO THE END OF THE FOCUS GROUP (it serves as positive reinforcement for the team's participation).
- The assistant must document the answers without personal interpretations.
- The assistant and moderator should try to keep distractions away from the focus group participants as much as possible. In this sense, a face-to-face meeting in a controlled environment can be very useful.
- The assistant and moderator must time themselves so as not to exceed the time scheduled with the team [1h30m].

Information to be collected

The focus group should be developed in such a way as to encourage discussion among participants in order to understand information on the following points:

- Participants' overview of the branching model offered.
 - Were participants able to understand the structure of the branching model?
 - o Do participants see any importance or usefulness in the branching model?

- Do participants see the branching model offered as useful for developing Al services?
- Do participants rate the initial guidelines for merging branch changes as helpful or appropriate?
- Are any of the processes required to use the proposed branching model seen as too costly or time-consuming, to the point of affecting a deadline or delivery? Or, on the contrary, do they have the potential to facilitate or accelerate deliveries?

Processes around the branching model:

- Definition of issues that guide the development of experiments, as well as determine acceptance criteria
- Performing commits that comply with the software configuration management guide
- Carrying out description of actions in PR, and preparing discussions and technical comments on the integration of branch changes, in reviews
- Have changes been made to the branching model offered, or to the criteria and methods for evaluating merges?
 - What changes?
 - Why?
- What specific criteria does the AI development team use to integrate branch changes?
 - What metrics were used to evaluate?
 - What types of checks were performed?
 - Who was involved in the decision?
 - How rigorous was the discussion process? Were the discussions properly documented in a technical manner?

Focus group preparation

• The focus group must be scheduled with the development team, so that the largest number of developers

are able to attend.

- It must be defined whether the meeting will be in person or remotely, so that the focus group
 recording instruments can be prepared, as well as preparing a meeting environment (if in
 person).
- One member of the study team should be designated as the moderator (who will lead the focus group discussions in order to collect relevant information), and a second researcher should assist in taking notes on the discussions.

In the moments before starting the focus group

- Thank the team members for their presence.
- Write down the names of all participants present.
- Request to record conversation, and start recording (if online, record via Google Meet, otherwise, use cell phones or audio recorders).
- Make it clear that the focus group is intended to develop a conversation around a few topics in order to gather information about the participants' opinions and discussions. There are no right or wrong answers.
- Make it clear that all information collected will be used for research purposes and improvement
 of the proposed model.
- Explain the context of the research carried out and the objectives, if the participants have not been previously contextualized.
- IMPORTANT: Request that everyone fill out the free participation and consent form.

Topic Sections

Below are topic sections that are intended to serve as a guide for discussions and data extraction. The following topics should serve as guidelines for the focus group, but additional discussions and questions may be held to bring out relevant discussions. However, consideration should be given to the time available for the focus group.

Section 0 - Current team activities and individual developer profile

This section should focus on gathering information about the individual profile of team members, and understanding the general characteristics of the activities the team performed in the last sprint.

- 1. What did the team work on in the last sprint?
 - a. Overall team goal for the sprint?
 - b. What did each member do most?

Section 1 - Insight into the branching model and change request review criteria and policies.

In this section, you should seek to understand the team's perception of the usefulness of the branching model and the criteria for evaluating change requests in development activities.

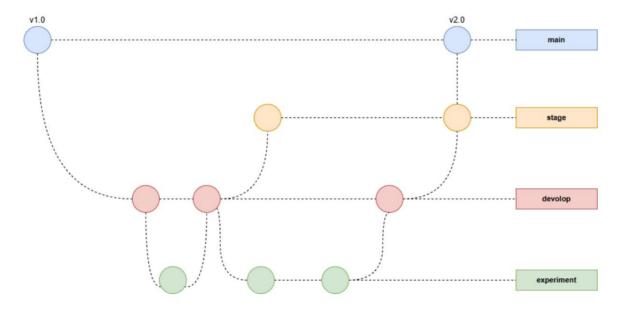
- 1. The model branches supported change management and model versions?
 - a. Was the team able to carry out their experiments in a consistent manner allowing for organization, collaboration and application of comparison criteria between experiments, to determine which are most appropriate for the evolution of the model under development?
 - b. Was the team able to navigate the branches properly, identifying the characteristics of the versions and variants in an easy way (remember that the branches have types that must be characteristic - experiment, develop, etc. -, a descriptive nomenclature and the issue numbering?
 - c. Was the branch structure adequate to provide environments for experimentation, development and evaluation of AI solutions, in order to support the evolution of the model under development and make it available in production and approval environments?
- 2. Did the proposed change request evaluation criteria and policies support the team's specific policy discussions and definitions?

- 3. Using the branching model facilitates the review and discussion process with members of the AI team and other development teams for integrating new versions of the model into staging and production environments.
- 4. The use of the branching model generally speeds up the development and evolution of the artificial intelligence module? Was the time dedicated to following the branching model guidelines and reviewing change requests compatible with the sprint objectives and demands?
- 5. Understanding the instructions, criteria and structure of the branching model was easy for participants?

Section 2 - Process adaptations by the team

This section seeks to extract information about the changes made by the team in relation to the previous process, as well as the motivators of these changes. The motivators will possibly be linked to some negative perception of the model (Section 1).

1. Was the team able to follow the branching model offered, with the "experiment", "develop", "stage" and "main" branches, during the development of the model? Were any adaptations to the model necessary? Why?



2. Was the team able to utilize the recommendations for review criteria and policies offered to be applied in the branching model?

Were any adaptations necessary? Why?

3. The team observes any feature, advantage or utility that makes so that the use of the proposed model is maintained?

Section 3 - About the *review* criteria and evolution of the model

- 1. In the experiments carried out on the developed AI solution, which metrics or criteria were used to evaluate the results? Were these metrics documented or communicated so that they could be applied systematically across all experiments?
- 2. Was some type of additional test or assessment used to evaluate the experiments? Were these documented or communicated so that they could be applied systematically across all experiments?
- 3. The results of specific metrics, tests or assessments have been presented in change requests? (Note: It is interesting to check whether the results are being presented through PRs, documented on specific platforms, or documented through some other means).
- 4. In requests for changes to more stable branches, and shared with actors external to the AI team ("stage" and "main" branches), how were the development results presented, and what criteria or tests were used to evaluate the request?
- 5. In requests for changes to more stable branches, and shared with actors external to the AI team ("stage" and "main" branches), who was involved in the discussions? Were there any difficulties in communicating with external actors?

Section 4 - Ending Discussions

- 1. Any additional information or recommendations that participants would like to hear? to add to the focus group?
- 2. Had the team used any branching model before? What was the model? In what context? [Only in the first interaction with the participants first round of focus group].

Closing focus group

- End recording
- Thanks again for the developers' participation
- Highlight positive points of the discussion, positively reinforcing the engagement of participants
- Ensure that the recording (if not done by Google Meet) is preserved and archived

After closing

- The recording must be transcribed to facilitate later analysis and information extraction.
- The recording and transcription must be made available to all researchers and supervisors.