Reviews:

Reviewer 1:

The paper is well organised and fulfils most of the recommendations of the review. I would suggest eliminating redundant sentences and improving the English. Few sentences are long and difficult to read. It is of interest to the scientific community and the first step towards seismic microzonation. Please consider the following comments by order of lines:

Lines 53-56. What are the three national geodatabase and what is the meaning of the abbreviation DINO.

Line 73. Provide with references for MapInfo, ArcGIS and GOCAD.

Line 96. In Canada, you may inform the readers that our team have first proposed a 4 layers models using borehole and seismic data to produce amplification factor and V_{s30} mapping of the island of Montreal. (Rosset and Chouinard (2009). Nat Hazards (2009) 48:295–308, DOI 10.1007/s11069-008-9263-1; Rosset et al. (2015). Bull Earthquake Eng, DOI 10.1007/s10518-014-9716-8). The approach has been extrapolated to the metropolitan area of Montreal (Rosset et al., 2013. Geosciences, 2023, 13, 256. https://doi.org/10.3390/geosciences13090256)

Figure 1A. A frame with coordinates around the map could be useful. The black line for the cross-section AB is not in agreement with the profile in Figure 1B. The outcropping Pleistocene in the Northern part of the profile is much longer than the end of the line in B.

Figure 1B. There is no distance information along the profile

Line 147. Lulu Island is not indicated in the map in Fig. 1A

Line 167. Change into capital the first letter of the “seismic microzonation hazard mapping project” to fit the acronym.

Figures 2 Add frame with coordinates around the maps (same comment for the other Figures with maps)

Figure 2A. The depth to Pleistocene in 0-10m (yello dots) in zones with outcropping Pleistocene. How do you explain that?

Figure 2B. The selected colors makes the reading of the map not easy. The ranges 0-10m and 31-50m have almost the same colors. Same remark for 301 and 801m ranges. Please change them.

Line 249. I don’t understand the term “collar”. Is it a usual term?

Line 261. The sentence “the input …” has been repeated several time in the text.

Line 283. I understand now the 10m value. How do you justify this value?

Line 290. What do you mean by “virtual log”? Could you explain the term and how you have proceeded?

Figure 3 Caption. I suppose we must read “also show the input ‘drillhole’ data” instead of “also show it’s the input ‘drillhole’ data”

Line 314. The sentence is a repetition of previous ones earlier in the text.

Line 320. You may explain what does mean “the ‘drilling only’ option” in your case.

Line 321. The sentence “The single pass isosurfacing was enabled to create the 3D model” needs to be explained.

Line 322. I understand the horizontal resolution of 100m but if you have a vertical resolution of 1000m, how can you capture the changes in the first 500m?

Line 340. You validate your 3D model by comparing the Clague et al. (1998) cross-section CD. What are the results of the comparison with other cross-sections shown in Figure 1A?

Line 373. Have you tested different values for the variogram’s parameters? How did you finally concluded to this “reasonable” values?

Figure 4B. Could you add a line following the curve 400 and 1000m/s to help the reader in the comparison? (same comments for the other Vs profiles)

Line 390. Why not show the results for the other cross-sections in Figure 1A for comparison? You may plot for example the depth for Vs=400m/s and 1000m/s of the geotechnical model in comparison with the depth of the top corresponding layer in the geological model.

Line 393. We always compare something with something else. The term “validation” is more appropriate than “comparison” in this sentence.

Line 396. It is not clear if the measured H/V data are part of this project or if they are results of other project. In this case, add a reference if it exists.

Line 397. “For this comparison purpose, we compare theoretical site amplification with the empirical”. This sentence needs to be reformulate.

Line 414. Could you please provide with the standard deviation of the calculated average Vs values?

Line 452. What could be the explanation of this increases difference for the site RI375 and RI376

Table 1. The table is not convenient to read. A graph with the three values of f_0 in y-axis and the sites in x-axis (distance in the cross-section) could be more appropriate. And this graph could include all the tested sites shown in Figures 5 to 8.

Line 480. Is the lack of data for the 3D model in this region could explain the differences between measured and modeled spectra?

Line 495. Could you discuss the influence of the lack of information for this region?

Conclusions. What could be the elements/ additional data needed to improve your 3d model?

Philippe Rosset

Associate researcher, Civil Engineering, McGill University

Recommendation: Revisions Required

Reviewer 2:

The authors present a 3D velocity model to be used in the estimation of the seismic amplification assessment within the seismic microzonation for Metro Vancouver. The model is thoroughly explained, and the databases and information used for its development is from well-established method and sources. However, there is no information regarding the smoothing and processing applied to estimate the MHVSR Fourier Spectrum, and given that the smoothing process is critical to properly capture the fundamental frequency (see Yazdi et al ., 2022), I suggest adding some sentences explaining it. The authors also present a good comparison between different approached to assess the fundamental frequency. This reviewer consider that the manuscript should be accepted for publication after some minor revisions.

Recommendation: Revisions Required

Dear Editor,

Thank you so much for considering me to reviewing this work. Outlined above you could find the comments after the revision with should be send it to the authors.

Main Comment

The authors present a 3D velocity model to be used in the estimation of the seismic amplification assessment within the seismic microzonation for Metro Vancouver. The model is thoroughly explained, and the databases and information used for its development is from well-established method and sources. However, there is no information regarding the smoothing and processing applied to estimate the MHVSR Fourier Spectrum, and given that the smoothing process is critical to properly capture the fundamental frequency (see Yazdi et al ., 2022), I suggest adding some sentences explaining it. The authors also present a good comparison between different approached to assess the fundamental frequency. This reviewer consider that the manuscript should be accepted for publication after some minor revisions.

Comments

1. In line 46 the authors stated that *"there has been significant progress in the use of 3D modelling in the geoscientific fields."*, Although they explained some of these works, it would be useful to include a citation after this sentence. (e.g. *"there has been significant progress in the use of 3D modelling in the geoscientific fields (Lemon and Jones 2003), etc..)."*

2. In line 60, I recommend include citations to support *"The conventional understanding of 3D geologic modelling typically adheres to the concept 60 of a stratigraphic sequence, where layers are arranged based on basic geologic principles".* I acknowledge that this could be somewhat general knowledge for the authors but for new researchers in the field it is helpful to see some references supporting this idea.

3. I line 64 it seems there is a comma missing after Miller (1993) citation. Furthermore, in line 67 the citation is missing. According to the next sentence it looks like it should be (Cowan et al., 2003).

4. In line 68 the (Cowan et al., 2003) seems off, could you consider in text citations and use of passive voice. For example, *the more recent implicit modelling approach proposed by Cowan et al. (2003) utilizes....* This comment is also applicable to other sentences in the text. Hence, I recommend checking the general redaction of the manuscript (e.g. line 98 where the location of Parent et al. 2021 citation makes the sentence reading difficult)

5. In line 74 a citation supporting this sentence would be useful *"In the modelling practices of the 1990s, conventional GIS platforms like MapInfo and ArcInfo, along with 3D modelling software, such as GOCAD, were commonly employed."*

6. In line 94, I suggest the inclusion of the following citation *"Lee, R. L., Bradley, B. A., Ghisetti, F. C., & Thomson, E. M. (2017). Development of a 3D velocity model of the Canterbury, New Zealand, region for broadband ground-motion simulation. Bulletin of the Seismological Society of America, 107(5), 2131-2150."*. Since it precedes the citations included and it is also used for the assessment of Ground Motions, also I recommend including other 3D models used for this purpose such as those used in US (https://www.scec.org/research/cvm)

7. In line 99 I would recommend erase the word *"successfully".* Since it does not add value to the discussion.

8. In line 114 I suggest replacing *"our 3D regional"* to *"a 3D Regional".*

9. In line 128 it seems a space is missing between the words *"of"* and *"Metro"*.

10. In line 133 it seems a comma is missing after Pleistocene.

11. In line 138 a space is missing in Rogers et al. (1998) citation.

12. In line 167 I suggest replacing the first "and" with a comma after de/amplification.

13. In Figure 2, The A, B, C and D referred in the captions are missed.

14. In Figure 4A is difficult to read the legend fonts, it should be improved. Furthermore, Figure 4B shows that between X 498408 and 492557, the depth to bedrock (Vs > 1500) is around 200m shallower. Given that this could have a great impact in the seismic amplification, a discussion regarding the possible reasons and impacts on the future hazard estimates should be included in the subsequent discussion made in lines 382- 391. Furthermore, for this same span (X 498408 and 492557) the geologic and "geotechnical layer" 3D model differs, hence the previous recommendation will help on explain why?

15. In line 373 you state that the variogram range was defined using a *"reasonable way"* what this means in this context, which statistical method you use? did you test the sensibility of your model for different ranges. The selection of this parameter is critical for the estimated spatial correlations. Hence more details on its selection should be added to the manuscript.

16. In Figures 5 and 6 the dashed lines could not be easily differentiated. Hence, I recommend increase grid transparency. Furthermore, giving the amount of information in the final version of the manuscript I recommend placed them in horizontal pages increasing its size. Also in figure caption it says *"as black line and L,H are one standard deviation"* I recommend the following *as black line and L,H represents the +/-1 standard deviation*.

17. In figure 5D station RI1377 which is placed in a deposit having more than 100m (according to the Figure scale) of soils having Vs less than 100 m/s. I recommend comment on this and also discuss about if modelling this deposit with your model is suitable or, mainly given the high impact that soft soils could have in the seismic performance (e.g Mexico 1985 Earthquake - Seed, H. B., Romo, M. P., Sun, J. I., Jaime, A., & Lysmer, J. (1988). The Mexico earthquake of September 19, 1985—Relationships between soil conditions and earthquake ground motions. *Earthquake spectra*, *4*(4), 687-729).

18. In the caption of Figure 7 you refer that dashed lines represent peak frequencies that don't have amplification higher than 2. However, there is no dashed lines in the figure. Hence, I suggest removing this from the caption.

19. In figure 8A the location of RAN 1555 is missed, and given is placed in a zone having shallower depths to bedrock I suggest including it.

Response to Reviewers:

The comments are based on updated Review track change file

Reviewer C:

Q. The authors present a 3D velocity model to be used in the estimation of the seismic amplification assessment within the seismic microzonation for Metro Vancouver. The model is thoroughly explained, and the databases and information used for its development is from well-established method and sources. However, there is no information regarding the smoothing and processing applied to estimate the MHVSR Fourier Spectrum, and given that the smoothing process is critical to properly capture the fundamental frequency (see Yazdi et al., 2022), I suggest adding some sentences explaining it.

Ans: Details of the MHVSR processing are added at line 198.

Reviewer D:

Lines 53-56. What are the three national geodatabase and what is the meaning of the abbreviation DINO.

Ans: Explanation is provided in the revised manuscript at lines 54 to 57.

Line 73. Provide with references for MapInfo, ArcGIS and GOCAD.

Ans: Citations were added at the appropriate location (Lines 845, 708, 755) and added to the Reference list.

Line 96. In Canada, you may inform the readers that our team have first proposed a 4 layers models using borehole and seismic data to produce amplification factor and V_{s30} mapping of the island of Montreal. (Rosset and Chouinard (2009). Nat Hazards (2009) 48:295–308, DOI 10.1007/s11069-008-9263-1; Rosset et al. (2015). Bull Earthquake Eng, DOI 10.1007/s10518-014-9716-8). The approach has been extrapolated to the metropolitan area of Montreal (Rosset et al., 2013. Geosciences, 2023, 13, 256. https://doi.org/10.3390/geosciences13090256)

Ans: We added this information at in line 98-101, and added the appropriate references in the reference list.

Figure 1A. A frame with coordinates around the map could be useful. The black line for the cross-section AB is not in agreement with the profile in Figure 1B. The outcropping Pleistocene in the Northern part of the profile is much longer than the end of the line in B.

Ans: Figure 1 is updated accordingly.

Figure 1B. There is no distance information along the profile

Ans: Distances are now added.

Line 147. Lulu Island is not indicated in the map in Fig. 1A

Ans: A label for Lulu Island has been added to Figure 1A.

Line 167. Change into capital the first letter of the "seismic microzonation hazard mapping project" to fit the acronym.

Ans. Done.

Figure 2. Add frame with coordinates around the maps (same comment for the other Figures with maps)

Ans. Coordinate frames around maps now included.

Figure 2A. The depth to Pleistocene in 0-10m (yellow dots) in zones with outcropping Pleistocene. How do you explain that?

Ans. The yellow dots convey the measured *in situ* determination of Pleistocene glaciated sediments, while the coloured map is based on surficial geology. The surficial geology mapping conveys that Pleistocene deposits are near surface consistent with in situ determination that Pleistocene sediments are within the top 10 m (0-10 m).

Figure 2B. The selected colors makes the reading of the map not easy. The ranges 0-10 m and 31-50 m have almost the same colors. Same remark for 301 and 801 m ranges. Please change them.

Ans. Colors have been updated.

Line 249. I don't understand the term "collar". Is it a usual term?

Ans. It is a common term associated with bore or drill holes. It is the terminology used by the Leapfrog Geo software for the drillhole (geocoordinates) location associated with a drillhole; https://help.seequent.com/Geo/6.0/en-GB/Content/drillholes/Drillholes.htm

Line 261. The sentence "the input …" has been repeated several time in the text.

Ans. Yes, it is the repeated terminology we use to communicate clearly the data input to Leapfrog Geo for each 3D model development.

Line 283. I understand now the 10 m value. How do you justify this value?

Ans. The "10 m value" discussed here is not the same 'topic' as the reviewer's previous question about 0-10 yellow circles compared to the surficial geology map in Figure 1. At Line 283, we are describing that when a borehole has a measured depth of Pleistocene sediments, we extend the occurrence of Pleistocene sediments in the uploaded (input) drillhole data a minimum of 10 m. If the depth to top of rock is also known, then the Pleistocene sediments are assigned over the entire depth interval between top of Pleistocene and top of rock (base of Pleistocene). If there is no further depth information for the drillhole, then a minimum 10-m of Pleistocene sediments are assigned; this effectively ensures the software will build (draw, trace, connect) the top of Pleistocene at this location with those of others – however depth of rock continues to not be known or assigned for

this hole and therefore it is not used in contouring/building the top of rock surface, i.e., the 10-m depth is arbitrary and not important. We have revised our writing at line 308 to better clarify this.

Line 290. What do you mean by "virtual log"? Could you explain the term and how you have proceeded?

Ans: We mean that we extracted 1D "drill hole" logs (depth of Pleistocene and rock) from 2D interpreted geologic cross-sections of Clague et al; at select locations along the drawn/interpreted cross-section, we retrieve the plotted depth of Pleistocene and rock as a 'drillhole' log. We revised the manuscript at line 316 as "…and 32 "virtual" logs of the four main geologies depth intervals ***visually retrieved*** at select locations along interpreted geological cross-sections of Clague…".

Figure 3 Caption. I suppose we must read "also show the input 'drillhole' data" instead of "also show it's the input 'drillhole' data".

Ans: The Figure 3 caption has been revised.

Line 314. The sentence is a repetition of previous ones earlier in the text.

Ans. Yes, it repeats information from an earlier paragraph, but it needs to be included again here to explain the process of obtaining 3D geomodels.

Line 320. You may explain what does mean "the 'drilling only' option" in your case.

Ans: The "drilling only" option ensures the drawn surface is accurate or honoured at the drill hole locations (snaps to that measured depth of Pleistocene or rock). We revised the sentence to "Use of the 'drilling only' option (in the boundary filter and 'snap to data' options) snaps the surface to the drillhole data and thereby honours all of the input 'drillhole' data."

Line 321. The sentence "The single pass isosurfacing was enabled to create the 3D model" needs to be explained.

Ans. We clarified further, changing the sentence to "The single pass isosurfacing was enabled to efficiently create the 3D model in one pass."

Line 322. I understand the horizontal resolution of 100 m but if you have a vertical resolution of 1000 m, how can you capture the changes in the first 500 m?

Ans: Whoops, we did not mean 1000 m vertical ***resolution***, we meant the full 1000 m model depth. We have revised the sentence to "We set our 3D seismic geology block model resolution to 100 m laterally in building the geology surfaces within the 3D model volume (1000 m max. depth) to optimise processing performance, a constraint imposed by the capabilities of the computer's clock speed."

Line 340. You validate your 3D model by comparing the Clague et al. (1998) cross-section CD. What are the results of the comparison with other cross-sections shown in Figure 1A?

Ans: All the remaining three cross-sections align well, but due to space constraints, only one is displayed here.

Line 373. Have you tested different values for the variogram's parameters? How did you finally conclude to this "reasonable" values?

Ans: We did not test many different values for the variogram's parameters. A range (sill) distance twice that of the largest data spacing ensures the data's spatial correlation is captured. For a spherical variogram model, the nugget is non-zero and often taken as 5% of the range plateau, i.e., sill value. We have revised lines 390-393 in the manuscript to improve clarity of these settings.

Figure 4B. Could you add a line following the curve 400 and 1000 m/s to help the reader in the comparison? (same comments for the other Vs profiles)

Ans. The graphs minor y-axis lines are shown at 400 m/s and 1000 m/s as grey lines. The Vs surface is built at 400 and 1000 m/s; colours in Figure 4B change at these values.

Line 390. Why not show the results for the other cross-sections in Figure 1A for comparison? You may plot for example the depth for Vs=400m/s and 1000m/s of the geotechnical model in comparison with the depth of the top corresponding layer in the geological model.

Ans: As mentioned earlier, we extract "virtual" logs along these interpreted geologic cross-sections which are included in the 3D model's input "drillhole" data. In other words, the Clague et al. geologic cross-sections are not a fully independent dataset to compare with. Hence we choose to not over-emphasize comparison of our 3D model surfaces with the Clague et al. geologic surfaces.

Line 393. We always compare something with something else. The term "validation" is more appropriate than "comparison" in this sentence.

Ans: We had previously used the word validation which was recommended to be changed to comparison during PhD oral examination and review by the PhD examining committee. We therefore maintain use of "compare" or "comparison".

Line 396. It is not clear if the measured H/V data are part of this project or if they are results of other project. In this case, add a reference if it exists.

Ans: The "MVSMMP" is added in line 420.

Line 397. "For this **comparison** purpose, we **compare** theoretical site amplification with the empirical". This sentence needs to be reformulated.

Ans: The terminology of the first three sentences in this section are revised; these grammatical changes stem from replacing "validation" with "comparison" as we mentioned in response to Line 393 feedback.

Line 414. Could you please provide with the standard deviation of the calculated average Vs values?

Ans: Done.

Line 452. What could be the explanation of this increases difference for the site RI375 and RI376

> **Ans**: The explanation is that the subsurface "drillhole" data (3D models) expect or anticipate continued deep depth to rock at these FR delta sites (f_0 is ~ 0.3 Hz while f_{0HV} is much higher), while the MHVSR f_{0HV} is not consistent (expected two peak response is observed as a broad higher frequency peak). Description ("explanation") for this discrepancy was described earlier (lines 470 to 474 in the original manuscript submission).

Table 1. The table is not convenient to read. A graph with the three values of f_0 in y-axis and the sites in x-axis (distance in the cross-section) could be more appropriate. And this graph could include all the tested sites shown in Figures 5 to 8.

> **Ans:** This is a good suggestion. We developed a new Figure 6 that plots the values of Table 1 (two y-axes for f_0 and % change) according to distance along the CD profile (x-axis).

Line 480. Is the lack of data for the 3D model in this region could explain the differences between measured and modeled spectra?

> **Ans**: We don't think so. For each selected MHVSR location (blue triangle along profile GH), there is roughly a corresponding nearby "drillhole" at the same location (distance along profile GH) in the 3D model (small black circles and black lines in the geologic GH cross-section).

Line 495. Could you discuss the influence of the lack of information for this region?

> **Ans:** Again "lack of information" is perceived from the plot, but the plot is not showing all the data, only those within a certain distance of the profile transect. The southern quarter of the geologic cross-section does not show nearby borehole logs (lack of vertical black lines in the geologic cross-section) but does show > 10 boreholes for the remaining ¾ of the profile northward. There are other "drillhole" data that would influence the southern part of the profile transect, they are just not within the search radius of the transect to be plotted.

Conclusions. What could be the elements/ additional data needed to improve your 3D model?

> **Ans:** Good question. We added a final Conclusion paragraph to answer this question.

Secondary Minor Revisions from Handling Editor:

Line 54-55: You say there are 3 national databases but then list 4. Please clarify.

In your response about MapInfo, Arc, and GOCAD references, you say you added the info to lines 845, 708, 755, but there is no line 845 and the other two line references don't apply to this topic. Please clarify. On line 75, please provide a full reference for MapInfo Pro, rather than just the company name.

Somewhere in lines 342-356, please add a sentence stating that you compared all three of the cross sections in Figure 1 and they all aligned with results, but only one is shown for brevity. This will help address the reviewers comment on this topic.

I agree that 'evaluation' is a more useful term than 'comparison' when not explicitly comparing one thing to another. You could consider renaming section 5 to 'Evaluation of 3D Models', but it is not required.

Response to Review from Handling Editor:

Comments by Tiegan

In the Tempalte we saw Non-technical summary so we added Non-technical summary as

- This study focuses on creating a 3D model of the seismic geology and shear wave velocity in Metro Vancouver to better predict earthquake hazards. Using a large set of data from various field studies, we identified four main geological units in the area: recent and ancient sediments, as well as older sedimentary and plutonic rocks. We integrated this geological information with data from over 2,300 records to develop a detailed model of the region's seismic properties. We validated our model by comparing it to established geological cross-sections, confirming its accuracy. Additionally, we created a numerical model with 11 velocity layers using data from 688 Vs profiles. This model's predictions align well with actual ground motion observations, demonstrating its reliability. Our findings show that combining local geological data with Vs information provides better predictions of seismic behavior than using regional data alone. This research enhances the understanding of earthquake risks in Metro Vancouver and underscores the importance of considering local seismic conditions for accurate hazard assessments.

The decision to retain or remove it rests with the editor. We have no preference in this matter.

C1- Line 54-55: You say there are 3 national databases but then list 4. Please clarify.

R1 - We addressed this previously but i think if we rewrite it as following it will be clearer. We have made the update in the manuscript at line 63- 66.

- the Danish Geological Survey has developed three national geodatabases (i.e., the Jupiter well database, geophysical database called GERDA, the oil and gas database known as FRISBEE, and the Geological Models Database) (Sandersen et al., 2016).

C2- - In your response about MapInfo, Arc, and GOCAD references, you say you added the info to lines 845, 708, 755, but there is no line 845 and the other two line references don't apply to this topic. Please clarify. On line 75, please provide a full reference for MapInfo Pro, rather than just the company name.

R2- We aim to convey that the practice of 3D modeling initiated in the 1990s with the utilization of diverse software such as MapInfo, ArcInfo, and Gocad. This is the reason for our inclusion of these software references. The references have now been updated to illustrate how researchers currently employ these applications to develop models.

In 84-90 line we update the reference as

In the modelling practices of the 1990s, conventional GIS platforms like MapInfo Pro (Kosuwan et al. 1999; Logan et al. 2006; Maxelon et al 2009) and ArcInfo (ESRI, 1999; Götzl et al. 2007; Stafleu & Dubelaar, 2016), along with 3D modelling software, such as GOCAD (Mallet, 1992; de Kemp &

Schetselaar, 2015; Russell et al. 2019), were commonly employed. However, contemporary 3D geological and groundwater modelling studies have transitioned to utilizing Seequent's LeapfrogGeo platform (Alcaraz et al., 2011), as highlighted by MacCormack et al. (2019).

C3- Somewhere in lines 342-356, please add a sentence stating that you compared all three of the cross sections in Figure 1 and they all aligned with results, but only one is shown for brevity. This will help address the reviewers comment on this topic.

R3- sentence is updated in 349-351

C4- - I agree that 'evaluation' is a more useful term than 'comparison' when not explicitly comparing one thing to another. You could consider renaming section 5 to 'Evaluation of 3D Models', but it is not required.

R4- Done updated in line 421 -422

C5 - Can you more clearly comment on the data availability through metrovanmicromap.ca? Is funding available to ensure this data will be available indefinitely? If not, could you use a service like Zenodo to archive your data with a doi?

R5- We added this paragraph in Data availability. Line 649-655

>> We have created a MVSMMP dataverse site on the Canadian data repository site, Borealis (https://borealisdata.ca/dataverse/MVSMMP) which is not yet published. This is a permanent data repository and each uploaded dataset receives a DOI/URL. We are currently in the process of uploading the 29 developed project maps as individual datasets to this dataverse site, which will be published after providing the maps to our BC Ministry client (in progress).

After these changes are made, the paper will be ready for acceptance. To be accepted, I will need you to:

(1) provide a clean version of the manuscript in a Seismica template, with editable article files provided

-Provided in the Seismica Template

(2) ensure all figures are uploaded as separate files, in png or pdf format

-Jpg format is provided

(3) consider including reviewers in your acknowledgments, if they identified themselves by name

-It’s updated by providing Reviewer name