Now that we’ve identified a couple of simulations and their uses, it’s your turn! In this writing problem, we’d like you to research a computer simulation of your choice. Feel free to choose any sort of program, from something esoteric (like flight simulators) to common (like t-shirt designing software). Just make sure that you can explain how the simulation is a computer program, and the benefits of using it. First open a text editor and create a file called ‘simulate’ (be sure that the file extension is either .doc, .docx, .pdf, or .txt)

Identify the users of the simulation, and the situations in which it is used.

Then, show your lower level understanding by finding what inputs the program takes, and what data it outputs (if any). Does the program account for all the features it is trying to model? Does the model rely on any assumptions? Are there downsides to using a program instead of testing in the real-world? What are those downsides?

You should aim to write about 300 to 400 words in this part of the problem.

Answer:

We talk about UX and UI designed with the concept of VR aided devices that allows the user to interact with interfaces inaccessible usually to them in their immediate environment. Let’s say the VR goggles that is enabling us to have better interactivity with the parts within an airplane, to better check on the status of parts and component constituents without the need for dismantling, or that of adhering to general predictions of product life from the factory manufacturers.

This raises the increasing safety standards that is proffered with there being advancements in tech, and would massively benefit the aviation industry which has always been focus-driven in the maintenance of the strictest standards to safety, and the added improvements in operational flow would be an added bonus per se.

Impact being there the prevalence of upgrading the typical engineer/technician to that of more advanced roles in giving him a bigger responsibility pegged to the task he was previously in charge of, to make sure he can do things with a much higher efficiency, and that of also maintaining the standards to a new level in terms of being familiarised with the respective components even though he might not be too sure on them, as there could be visuals incorporated into the visuals indicated on the screen, which could then provide on-site training for the servicer with regards to the details he needs to fully execute the job/task on hand.

In regards to that of the functionality, how it works is to really do a physical-virtual backup of the database of components into the virtual dictionary, which would trigger upon the views of the goggles the respective components akin to the relative segment of a plane body that the goggles match with for instance. This would trigger the call function that is common for the computing languages, where we obtain visual input data from the distros and then subsequently process and link it to the relevant part in the dictionary, akin to the key-dictionary synthesis efforts.