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1. What do you mean by the art of programming? Brief in 100 words

The art of programming means to be able to make life simpler than repeating the same pattern for a long time. For me, Programming is a tool that helps me save time and helps me to achieve results that I desire after giving it the right inputs. The process of writing code for example for a smart home, where you program the appliances to be able to work at that appointed schedule like a well-oiled machine is a lot of work but the results are definitely worth it when you can use your time that is saved to do anything else. It gives you a sense of freedom and accomplishment and helps quench your thirst to be better and do better than just being happy in a monotonous life without much hassle.

2. Write a short note on working of programming language in a computer machine. (Watch crash course videos for reference, you can do google search). Maximum 500 words

The programming language in a computer machine is the language that works as the basic input from the programmer to be able to talk to the computer's hardware and then be able to understand the output from the computer. There may be many ways and many different languages but with the right interpreter (in this case the compiler) we are able to translate the programming language into interpreted language that could be understood by the hardware (in this case the ALU - Arithmetic Logic Unit) and then placed in spaces in the memory (RAM - Random Access Memory) while it's being worked on and then which can be stored for later use in the ROM (Read Only Memory).

The input programming language is first detected and the compiler then converts this into a language that can be interpreted like the assembly language which then is converted to binary language which is the only language that can be understood by the CPU. This binary language code is assigned memory spaces in the RAM according to the programming code and the corresponding actions are performed on it by the CPU. After achieving the results, the process becomes reversed where the output binary code is then converted to assembly code and then translated to the programming language for the programmer to understand and then contemplate on what to do next with the generated output.

With this generated output, there are many multiple ways to move ahead such as debugging the code in case of an undesired output or storing the output in the ROM for further use in the future. The output helps us to identify whether what the programmer envisioned has been achieved or how the debugging (software or hardware wise) needs

to be done to convey the entire thought process to the computer which can work on this data and give us a model/opinion on how the idea can be realised.

So we can say that programming language is a tool that helps us to put the ideas we think into a form which can be understood by the computer and get it's opinion on whether it's a viable thought or not. That is only if the programming is done without any errors and we are able to convey the idea in the right manner/method. This is how we are able to get the output that would satisfy our curiosity.