

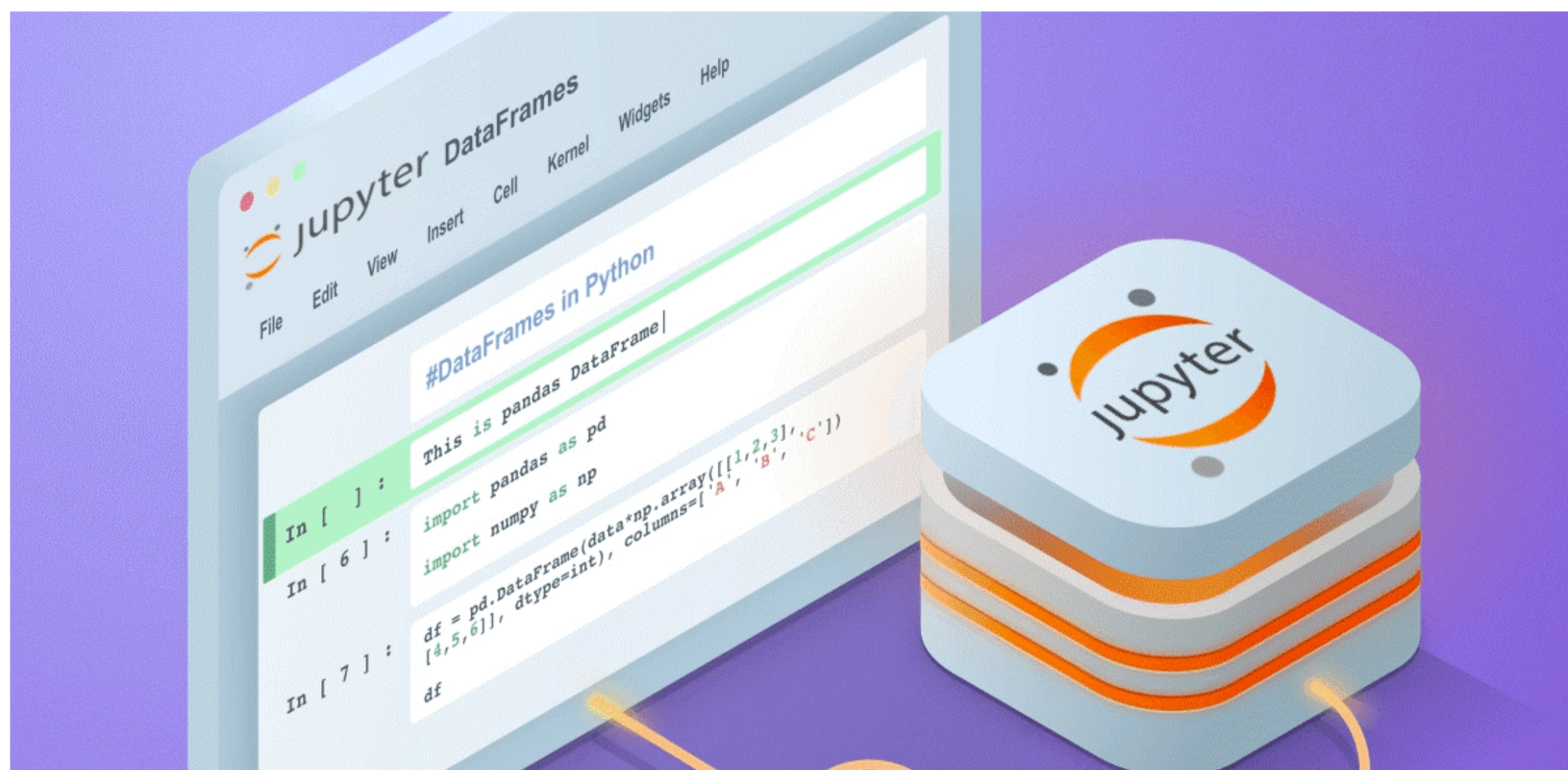


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# Implementing basic programming skills in first-year physics labs



First-year physics courses do not always include much formal instruction in analyzing, reporting, and presenting data in a professional manner. As a result, students resort to plotting tools such as Excel, which are needlessly complicated and not tailored for their needs. In this talk, I will discuss my Teaching Fellowship project, in which I produced and implemented a set of simple, plug-and-play Python Jupyter notebooks which students can reuse and adapt throughout their first year to easily analyze data and generate professional figures for their lab reports. For students, these notebooks both stimulate the development of programming skills, as well as emphasize the importance of data analysis in science. This project also lays the foundation for further incorporation of programming into the physics curriculum at UTM.