# Guidelines for ML component development

1. Application components must follow object oriented programming concepts
2. All component need to be modularized to make sure each module performs a single function (example: database access, data wrangling/ manipulation, one for each category of ML algorithm etc.)
3. All code must include reasonably good comments throughout, explaining what each code component/ module/ class does, what parameters are etc.
4. Code must be modular, comprise re-usable components to the extent possible. DO NOT DUPLICATE CODE.
5. Identify integration points for the upstream/ downstream hook-ups.
   1. The code you are building will be integrated with existing application. Integration is by way of data exchange through database tables – read from a database table(s) and write to a database table(s)
6. All code developed for this project must be supported on both Windows and UNIX/ LINUX OS.
7. Document all python packages needed for executing your code – ideally, create script that will allow us to download all the package dependencies (package names and version to be maintained in a file).
8. Current Application uses Python 2.7 and R 3.5.1 – We would like the new application to work on these versions of R and Python to begin with; where possible document the impact of upgrading to current version of Python (3.7.\*) and R (3.6).
9. Create an installer for the ML components
10. Coding standards

* Follow standards as defined in <https://pep8.org/>