1) Why do corporations like to use Cyclomic Complexity, but Academia does not? (no more than 50 words + reference)

Answer.

Cyclomic Complexity emphasizes application functionality and has an easy-to-understand complexity meter. It is suitable for industrial level development since it is an effective metric and can indicate if a module should be broken down or not. Yet, academic institutions do not encourage cyclomatic complexity since they have distinct interests.

Refrences:

https://learn.microsoft.com/en-us/visualstudio/code-quality/code-metrics-cyclomatic-complexity?view=vs-2022

https://medium.com/swlh/pros-and-cons-of-cyclomatic-complexity-as-a-metric-b25000dcda9c

https://www.academia.edu/38595125/_Cyclomatic_complexity_and_its_Applications

https://www.cqse.eu/en/news/blog/mccabe-cyclomatic-complexity/

2) Determining software defects is key to understanding the quality of the software. Pick three software defect models:

A) Compare and contrast them

B) Which model would you recommend to your manager to use on a project and why.

C) Max 100 words

Answer.

- Boehm's COQUALMO model

predicts the number and severity of defects based on six factors, require significant effort to implement and maintain. detailed and accurate defect predictions

- Software Defect Amplification Model (SDAM)

identifies and prioritizes defects based on development practices, software complexity, and team quality, uses defect amplification factor defect removal efficiency to give accurate prediction

- Orthogonal Defect Classification (ODC) model.

defects based on their attributes. ODC is a simpler model that is easier to use but provides less detailed information about defects.

I would recommend Software Defect Amplification Model as it can help developers prioritize their defect management activities.

Refrences:

https://www.geeksforgeeks.org/boehms-software-quality-model/
https://link.springer.com/chapter/10.1007/978-3-540-79588-9_18
http://testingcorner.blogspot.com/2008/05/defect-amplification-and-removal-in.html
https://medium.com/@SWQuality3/what-is-orthogonal-defect-classification-odc-by-vivek-vasudeva-f2e49917f478