ENPM 808X ASSIGNMENT 3

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1. How are software changes classified by their purpose? What is the most common purpose of the change?

Software changes are majorly classified by their purpose - the need for the change and the impact the change will endure on the product. The common classification by their purpose is- *perfective changes, adaptive changes, corrective changes and protective changes*. Each category specifically suggests the aim or the purpose of the software change. The most common purpose of the change is perfective change, which accounts to about two-thirds of the software changes.

2. When is it permissible to do quick-fix changes?

Oftentimes quick-fix changes are permissible in a situation during the evolution stage, when it is of utmost importance and urgency. In case of an emergency, when the human life or a substantial value is at stake, quick-fix changes are asserted. Quick-fix changes are also done during the servicing stage, the software value at that point is low and there are no plans for future evolution for the software.

3. What is a product backlog?

When changes are involved in software, there is rarely only one change required. Usually, the programmer has to take into account a set of requirements. This set of requirements is stored in what is called as a product backlog. The product backlog is described as a shared vision of the project stakeholders for the future of the product.

4. Describe a situation when a grep search fails. What would you do if this happened to you?

The grep search often fails in a search for implicit concepts; their names usually do not appear in the code because there is no code, identifier, or comment that indicates the presence of the concept extension. If this would happen to me, I would use another concept location technique such as dependency search. I would ensure the code has good identifiers with comments to ease the concept location process.