

# ENPM808X: Software Development for Robotics

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## 1. Software Engineering 5.1

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

Different Types of Software changes can be classified by their purpose as:

- A. Preventive maintenance- Refers to software changes carried out to futureproof your product
- B. Corrective maintenance- Are those that fix bugs, flaws and defects in the software. It often comes in the form of quick, small updates on a semi-regular basis.
- C. Adaptive maintenance- The tech environment is constantly changing. New knowledge, hardware, and cybersecurity threats mean that software quickly becomes outdated.
- D. Perfective maintenance- Addresses the functionality and usability of the software. And involves changing existing product functionality by refining, deleting, or adding new features.

The most common purpose of change is the **perfective change** .

## 2. Software Engineering 5.3

*When is it permissible to do quick-fix changes?*

The situation is an emergency i.e a human life or something of substantial value is at stake. Situations like these warrant fixes to be quick and the urgency outweighs every other consideration.

## 3. Software Engineering 5.5

*What is a product backlog?*

The product backlog is the stored set of requirements or set of user stories that the programmers manage. The product backlog is the single authoritative source for things that a team works on. That means that nothing gets done that isn't on the product backlog.

## 4. Software Engineering 6.6

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

A grep search fails often when the query does not produce a result. grep also fails in a search for implicit concepts; names do not appear in code because there exists no code, identifier or comment that indicates the presence of the concept extension.

I will rely on other concept location techniques to search.