软件工程

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8.1

Maintenance is Necessary

Maintenance

◆ **Maintenance**

➤ *Any* **change to** *any* **component of the product (code, data, documentation) after it has passed the acceptance test and is delivered to the client and users.**

◆ **Why maintenance ?**

Types of maintenance

1. **Corrective maintenance**

   ➢ **To correct residual faults ----**

      Requirements, analysis, design, implementation, documentation, or any other types of faults

   ➢ **On average, 17.5% of maintenance**

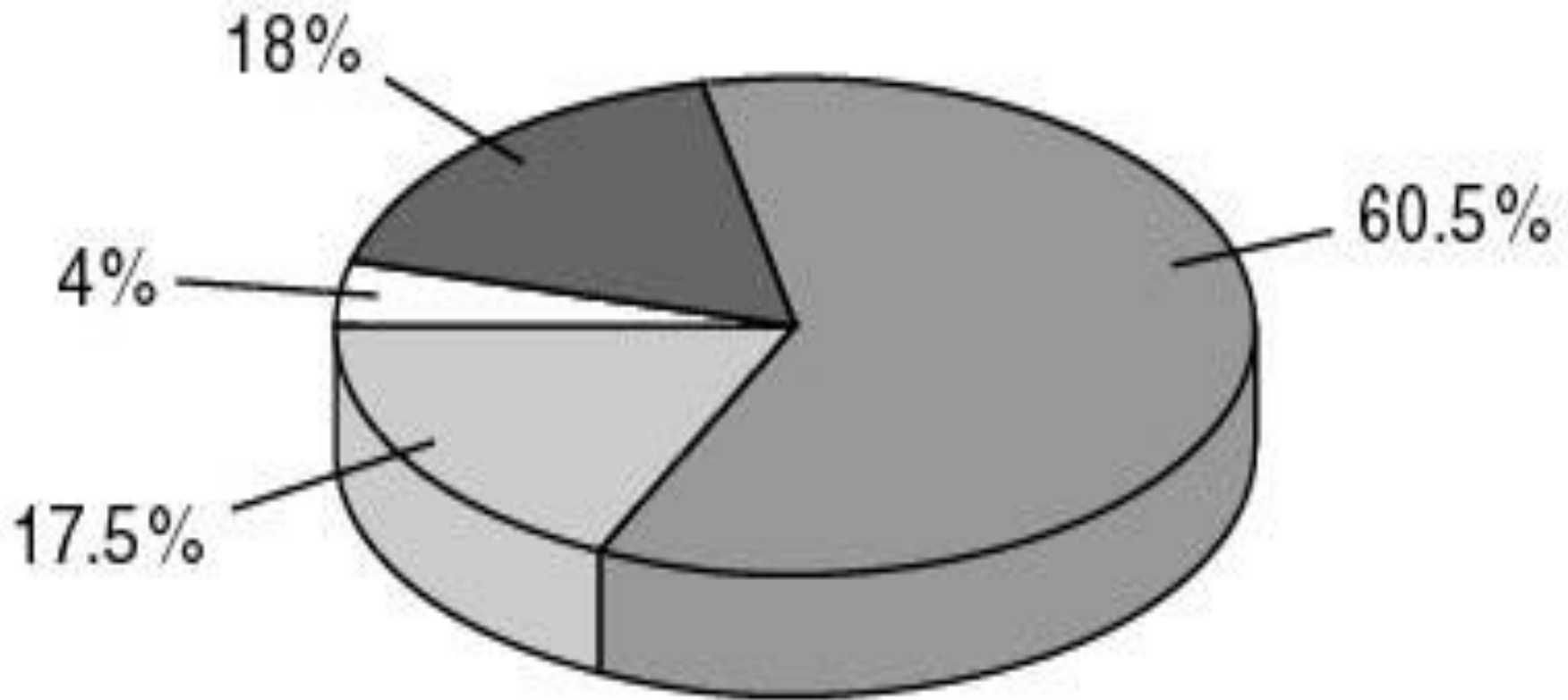# Types of maintenance

2. **Perfective maintenance**

   ➢ **Client requests changes to improve product effectiveness**

   - **Add additional functionality**

   - **Make product run faster**

   - **Improve maintainability**

   ➢ **On average, 60.5% of maintenance**

Types of maintenance

3. **Adaptive maintenance**

  ➢ **Responses to changes in environment in which product operates**

   • **Product ported to new compiler, operating system, and/or hardware**

   • **Change of tax code**

   • **5-digit ZIP codes change to 9-digit**

   • **ID changed from 15 bits to 18 bits**

  ➢ **On average, 18% of maintenance**

Types of maintenance

18%
60.5%
4%
17.5%

☐ Corrective ☐ Perfective ■ Adaptive ☐ Other

Is maintenance important?

➢ **Yes, maintenance is necessary.**

➢ **While, is it important? For users? For client? For development organization?**