QUIZ 2

1. **Describe the concept separating interface from implementation.**

    - Easier to modify programs
    - Hints about other implementation; private members
    - Header files
        - Class definitions and function prototypes
        - Included in each file using class; **#include**
        - File extension **.h**
    - Source-code files
        - Member function definitions
        - Same base name; Convention
        - Compiled and linked

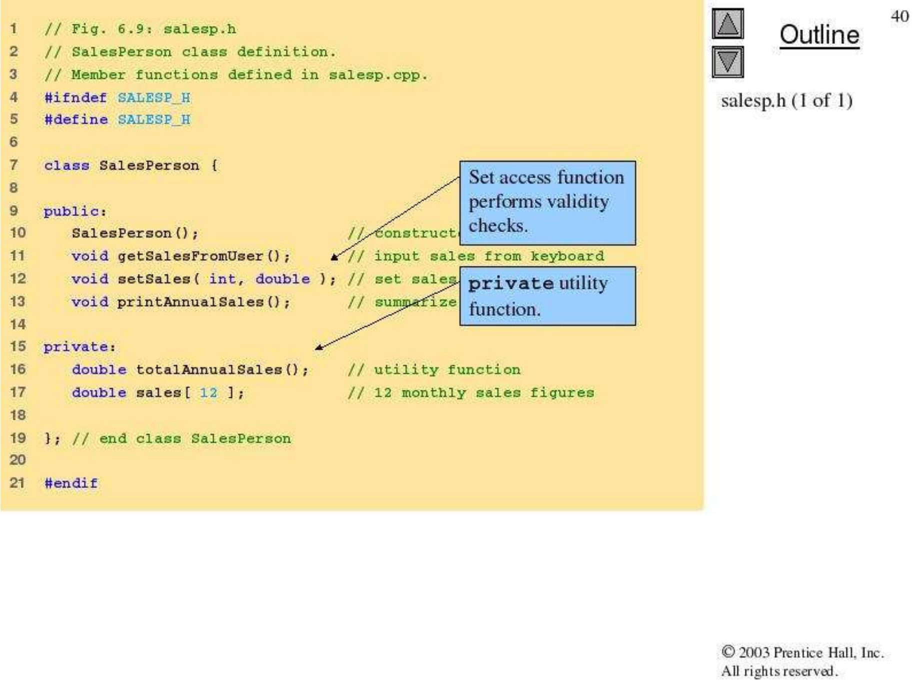
2. **What are the utility functions? Compare with access functions.**
    Not all member functions need be made **public** to serve as part of the interface of the class.

    - Access functions in **public**
        - Read/display data
        - Predicate functions
        - Check conditions
        - Utility functions (helper functions)
    - Utility functions in **private**
        - Support operation of **public** member functions
        - Not intended for direct client use

3. **Write a code fragment to show Utility function demonstration.** (see Fig 1)

4. **Describe the Software Reusability as a OOP concept.**

    - Class libraries
        - Well-defined
        - Carefully tested



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Outline

salesp.h (1 of 1)

```
// Fig. 6.9: salesp.h
// SalesPerson class definition.
// Member functions defined in salesp.cpp.
#ifndef SALESP_H
#define SALESP_H

class SalesPerson {

public:
   SalesPerson();                     // construct
   void getSalesFromUser();           // input sales from keyboard
   void setSales( int, double );      // set sales
   void printAnnualSales();           // summarize

private:
   double totalAnnualSales();         // utility function
   double sales[ 12 ];                // 12 monthly sales figures

}; // end class SalesPerson

#endif
```

Set access function performs validity checks.

private utility function.

Figure 1: **SalesPerson** class definition

  - Well-documented
  - Portable
  - Widely available
- Speeds development of powerful, high-quality software
  - Rapid applications development (RAD)
- Resulting problems
  - Cataloging schemes
  - Licensing schemes
  - Protection mechanisms