**Tutorial 9**

1. The table below shows the product numbers and their respective unit prices.

|  |  |
| --- | --- |
| Product Number | Unit Price |
| 7 | 345.00 |
| 8 | 853.00 |
| 9 | 471.00 |
| 10 | 933.00 |

Use *typedef* to rename the int type to ProductNo. Then declare a variable named pNo and initialize it with 7.

Write the *switch* statement to assign the unit price to a variable named uPrice according to pNo.

1. What is wrong with the following pair of enumeration type declarations

enum Colors {RED, ORANGE, YELLOW, GREEN, BLUE, INDIGO, VIOLET};

enum Flowers {ROSE, DAFFODIL, LILY, VIOLET, COSMOS, ORCHID};

1. Use an enumerated type to represent the planet listed below.

Mercury, Venus, Earth, Moon, Mars, Jupiter, Saturn, Uranus, Neptune, Pluto

1. (a) Declare a structure called **condo** which has the following members:
   * An array called **location** of type character with 20 elements.
   * A character type variable called **pattern**.
   * An integer type variable called **area**.
   * A double type variable called **price**.

Define a structure variable called **alpha**.

(b) Write C++ statements to assign the following values to the respective members of the variable **alpha**:

(i) “Setapak” to **location**

(ii) ‘C’ to **pattern**

(iii) 1800 to **area**

(iv) 550,800.00 to the **price**

1. Given the following structure called ***house***:

struct house

{

char area[20];

int squareft;

double rental;

};

Write C++ statements to perform the following tasks:

1. Declare a variable called ***hse*** for the structure ***house*** and initialize it with values “Kita Damansara”, 1550 and 2200.00 according to the order of the members in the structure.
2. Use the assignment operator to change the value of the rental member to 2300.00.
3. Use the assignment operator to change the 2nd letter of the area member from ‘i’ to ‘o’. The new area will become “Kota Damansara”.
4. Declare another array of structure variable called ***hses*** which contains the details of 5 houses.
5. Use a loop to change the rental of the 5 houses in the ***hses*** array to 3000.00.
6. Assume that the details of the houses have been initialized into the ***hses*** array of structure variable. Use an appropriate loop structure to print the details of all the 5 houses.
7. (a) Given the following structure declaration:

struct date {

int day, month, year;

};

struct myfriends {

char name[20]; // name

date dob; // date of birth

};

myfriends schoolFriends;

Write C++ statements to perform the following tasks:

1. Replace the 5th character of the member *name* of the structure variable *schoolFriends* with the letter ‘G’.
2. Add 3 to the member *year* in the structure variable *schoolFriends*.
3. Store the name “**Peter Chan**” and the day of the date of birth which is **15** into the respective members of the *schoolFriends* variable.
4. Declare another structure array variable called *schoolMates* which contain details of 20 schoolmates.
5. Use a loop to print the contents in the *schoolMates* array as below:

Name DOB

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Peter Chan 20/2/1980

Celine Wong 4/12/1981

William Chang 31/8/1980

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