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22BAI10288

PRACTICE SET-1

Branch/Semester	B.Tech/Fall semester	Session	2024-2025
Name of Faculty	Dr. Jitendra P S Mathur	Subject	Object Oriented Programming With C++
Module	ALL	Sub Code	CSE-2001

S.No	Questions	CO Attainment
1	Write a program with a mother class and an inherited daughter class. Both of them should have a method <code>void display ()</code> that prints a message (different for mother and daughter). In the main define a daughter and call the <code>display()</code> method on it.	CO.1
2	Write a program that prints on the screen all the even numbers up to 10.	CO.1
3	Create an array that can hold ten integers, and get input from user. Display those values on the screen, and then prompt the user for an integer. Search through the array, and count the number of times the item is found.	CO.1
4	Write a c++ class called 'student' with Data members: <code>name(char type),</code> <code>marks1,marks2 (integer type)</code> The program asks the user to enter name and marks. Then <code>calc_media()</code> calculates the media note and <code>disp()</code> display name and total media mark on screen in different lines.	CO.1
5	Write a C++ program to print the results of the specified operations. Sample Output: Print the result of some specific operation : Result of 1st expression is : 23 Result of 2nd expression is : 5 Result of 3rd expression is : 12 Result of 4th expression is : 3	CO.1

A1)

```
#include <iostream>

using namespace std;

class Mother {
public:
    void display() {
        cout << "This is the mother class." << endl;
    }
};

class Daughter : public Mother {
public:
    void display() {
        cout << "This is the daughter class." << endl;
    }
};

int main() {
    Daughter d;
    d.display();
    return 0;
}
```

A2)

```
#include <iostream>

using namespace std;

int main() {
    for (int i = 2; i <= 10; i += 2) {
        cout << i << " ";
    }
    cout << endl;
    return 0;
}
```

A3)

```
#include <iostream>

using namespace std;

int main() {
    int numbers[10];
```

```

int searchNum, count = 0;

// Get input from user
cout << "Enter 10 integers:" << endl;
for (int i = 0; i < 10; i++) {
    cin >> numbers[i];
}

// Display the values
cout << "The entered numbers are:" << endl;
for (int i = 0; i < 10; i++) {
    cout << numbers[i] << " ";
}
cout << endl;

// Get the number to search for
cout << "Enter the number to search for: ";
cin >> searchNum;

// Search for the number in the array
for (int i = 0; i < 10; i++) {
    if (numbers[i] == searchNum) {
        count++;
    }
}

// Display the count
cout << "The number " << searchNum << " appears " << count << " times in the
array." << endl;

return 0;
}

```

A4)

```

#include <iostream>
#include <string>

using namespace std;

class Student {
public:
    string name;
    int marks1, marks2;

    void get_data() {

```

```

        cout << "Enter name: ";
        cin >> name;
        cout << "Enter marks1: ";
        cin >> marks1;
        cout << "Enter marks2: ";
        cin >> marks2;
    }

    void calc_media() {
        double media = (marks1 + marks2) / 2.0;
        cout << "Media note: " << media << endl;
    }

    void disp() {
        cout << "Name: " << name << endl;
        cout << "Total media mark: " << (marks1 + marks2) << endl;
    }
};

int main() {
    Student s;
    s.get_data();
    s.calc_media();
    s.disp();
    return 0;
}

```

A5)

```

#include <iostream>

using namespace std;

int main() {
    int a, b, c, d;

    cout << "Enter four numbers: ";
    cin >> a >> b >> c >> d;

    cout << "Print the result of some specific operation :" << endl;
    cout << "Result of 1st expression is : " << a + b + c << endl;
    cout << "Result of 2nd expression is : " << a - b * c << endl;
    cout << "Result of 3rd expression is : " << a / c + d << endl;
    cout << "Result of 4th expression is : " << (a + b) % c << endl;

    return 0;
}

```