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### Assignment-2

1) Class student {

String name;

int age;

Public:

student () {

name = "unknown";

age = 0;

void display() {

cout << "Name: " << name <<

Age: " << age << endl;

}

}

}

2) Rectangle class

class Rectangle {

int length, breadth;

{

length, breadth;

int area() {

return length \* breadth;

{

}

3) Box class with constructor, overloading

class Box {

int length, width, height;

Public:

Box() { length = width = height =

1; // no argument

height = side; // @ be.

Box (int l, int w, int h) { length = l; }

int volume () { h }

return length \* width \* height;

3;  
3;

4) - Book class with copy

- constructor

Class Book {

String title;

float Price;

Public:

Book (String t, float P) {

title = t; Price = P;

3

Book (const Book & b) { // copy constructor

title = b.title

Price = b.Price;

3 - void display () {

cout << title; cout << Price;

cout << endl;

3

3;

5) Bank Account class

Class Bank Account {

int Account Number;

float balance;

Public:

Bank account (int acc = 0, float bal  
= 0.0) {

a (Account Number = acc);

balance = bal;

3

void display () {

```
cout << "Account Number : " << account_number
```

```
Balance : " << balance << endl
```

```
3;
```

```
3;
```

### 6) Calculator class

```
class calculator { public: }
```

```
int num1, num2;
```

```
public:
```

```
calculator (int a, int b) {
```

```
num1 = a; num2 = b;
```

```
int add () { return num1 + num2; }
```

```
3;
```

### 7) Circle class

```
class circle {
```

```
float radius;
```

```
public:
```

```
circle (float r) { radius = r; }
```

```
float area () { return 3.14159 *
```

```
radius * radius; }
```

```
3;
```

### 8) Car class

```
class car {
```

```
string brand;
```

```
float price;
```

```
public:
```

```
car (string b, float p) {
```

```
brand = b; price = p;
```

```
3;
```

```
void display () {  
    cout << "Brand: " << brand <<  
    "Price: " << price << endl;  
}
```

### a) Employee class

```
class Employee {  
    string name;  
    float salary;  
public:  
    Employee (string n, float s) {  
        name = n; salary = s;  
    }
```

```
void display () {  
    cout << "Employee: " << name <<  
    "Salary: " << salary << endl;  
}
```

### b) Student class with array of objects

```
class Studentmarks {  
    int roll_no;  
    int marks;
```

```
public:  
    Studentmarks (int r, int m) {  
        roll_no = r; marks = m;  
    }
```

```
void display () {  
    cout << "Roll no: " << roll_no <<  
    "Marks: " << marks << endl;  
}
```

```
int main() {  
    1. student  
        student s1;  
        s1. display();  
  
    2. Rectangle  
        Rectangle rec(10, 5);  
        cout << "Rectangle Area: " << rec. area() << endl;  
  
    3. Box  
        Box b1, b2(3), b3(3, 3, 4);  
        cout << "Box1 volume: " << b1. volume() << endl;  
        cout << "Box2 volume: " << b2. volume() << endl;  
        cout << "Box3 volume: " << b3. volume() << endl;  
  
    4. Book  
        Book1. display();  
        Book2. display();  
  
    5. Bank Account  
        Bank account acc(12345);  
  
    6. Calculator  
        Calculator calc(10, 20);  
        cout << "Sum: " << calc. add() << endl;  
  
    7. Circle  
        Circle c(7);  
        cout << "Circle Area: " << c. area() << endl;  
  
    8. Car  
        Car car1("BMW", 5500000);  
        car1. display();  
  
    9. Employee  
        employee emp("John", 45000);  
        emp. display();
```