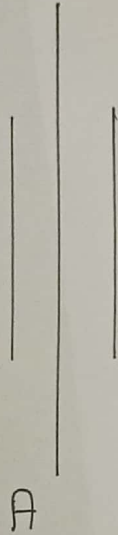


# KATHMANDU UNIVERSITY

DHULIKHEL, KAVRE



Lab Report On  
Object Oriented Programming [COMP 116]  
Lab Work No: 3

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Q. 17: Define a class, Vector which represents either a column vector or row vector. The vector consists a single row/column of elements. Let  $m=3$ .

Use appropriate constructor and destructor.

Implement the following method:

Vector add(Vector) // Adds the vector.

Ans:

\* Source Code

```
#include <iostream>
```

```
class Vector {
```

```
private:
```

```
float x;
```

```
float y;
```

```
float z;
```

```
public:
```

```
Vector(float x, float y, float z) : x(x), y(y), z(z) {}
```

```
vector add(const vector& result);
```

```
void print();
```

```
~vector(); {}
```

```
Vector vector::add(const vector& v2) {
```

```
float x = v1.x + this->x;
```

```
float y = v1.y + this->y;
```

```
float z = v1.z + this->z;
```

```
return vector(x, y, z); }
```

```

void Vector::print() {
    std::cout << " The resulting vector is "
    << x << " " << y << " " << z << std::endl;
}

```

```

Vector::~Vector() {}

```

```

int main()

```

```

{

```

```

    Vector v1(1,2,3);

```

```

    Vector v2(1,2,3);

```

```

    Vector v3 = v1.add(v2);

```

```

    v3.print();

```

```

    return 0;
}

```

(\*) Output

The resulting vector is 2 4 6 .
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(x) Description

This program consists of a class 'Vector' which contains data member x, y, z and has functions to initialize, add and print the sum of two vectors.