**INPUT**

#include <iostream>

using namespace std;

class poly {

public: int coeff;

int pow\_val;

poly\* next;};

class add {

poly \*poly1, \*poly2, \*poly3;

public:

add() { poly1 = poly2 = poly3 = NULL; }

void addpoly();

void display(); };

void add::addpoly()

{

int i, p;

poly \*newl = NULL, \*end = NULL;

cout << "Enter highest power for x\n"; cin >> p;

cout << "\nFirst Polynomial\n"; for (i = p; i >= 0; i--) {

newl = new poly;

newl->pow\_val = p;

cout << "Enter Co-efficient for degree" << i << ":: "; cin >> newl->coeff;

newl->next = NULL;

if (poly1 == NULL)

poly1 = newl;

else

end->next = newl;

end = newl; }

cout << "\n\nSecond Polynomial\n"; end = NULL; for (i = p; i >= 0; i--) {

newl = new poly;

newl->pow\_val = p;

cout << "Enter Co-efficient for degree" << i << ":: "; cin >> newl->coeff;

newl->next = NULL;

if (poly2 == NULL)

poly2 = newl;

else

end->next = newl;

end = newl; }

poly \*p1 = poly1, \*p2 = poly2;

end = NULL;

while (p1 != NULL && p2 != NULL) {

if (p1->pow\_val == p2->pow\_val) {

newl = new poly;

newl->pow\_val = p--;

newl->coeff = p1->coeff + p2->coeff;

newl->next = NULL;

if (poly3 == NULL)

poly3 = newl;

else

end->next = newl;

end = newl; }

p1 = p1->next;

p2 = p2->next; } }

void add::display()

{

poly\* t = poly3;

cout << "\n\nAnswer after addition is : \n";

while (t != NULL) {

cout.setf(ios::showpos);

cout << t->coeff;

cout.unsetf(ios::showpos);

cout << "X" << t->pow\_val;

t = t->next; } }

int main()

{

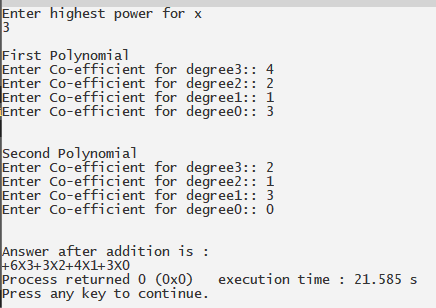
add obj;

obj.addpoly();

obj.display();

}

**OUTPUT**

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