

**DATA STRUCTURE & ALGORITHM**

**GA-1**

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Q.1 Write a program for addition of two matrices.

Ans. #include <stdio.h>

int main() {

int r, c, a[100][100], b[100][100], sum[100][100], i, j;

printf("Enter the number of rows (between 1 and 100): ");

scanf("%d", &r);

printf("Enter the number of columns (between 1 and 100): ");

scanf("%d", &c);

printf("\nEnter elements of 1st matrix:\n");

for (i = 0; i < r; ++i)

for (j = 0; j < c; ++j) {

printf("Enter element a%d%d: ", i + 1, j + 1);

scanf("%d", &a[i][j]);

}

printf("Enter elements of 2nd matrix:\n");

for (i = 0; i < r; ++i)

for (j = 0; j < c; ++j) {

printf("Enter element a%d%d: ", i + 1, j + 1);

scanf("%d", &b[i][j]);

}

for (i = 0; i < r; ++i)

for (j = 0; j < c; ++j) {

sum[i][j] = a[i][j] + b[i][j];

}

printf("\nSum of two matrices: \n");

for (i = 0; i < r; ++i)

for (j = 0; j < c; ++j) {

printf("%d ", sum[i][j]);

if (j == c - 1) {

printf("\n\n");

}

}

return 0;

}

Q.2 Write a program for single inheritance.

Ans. #include <bits/stdc++.h>

using namespace std;

class Parent

{

public:

int id\_p;

};

class Child : public Parent

{

public:

int id\_c;

};

int main()

{

Child obj1;

obj1.id\_c = 7;

obj1.id\_p = 91;

cout << "Child id is " << obj1.id\_c << endl;

cout << "Parent id is " << obj1.id\_p << endl;

return 0;

}

**Thankyou**