

1

STACK MEMORY

HEAP MEMORY

STACK FRAME FOR MAIN()

num1 **99**
st1

STUDENT:
BOB
MATH
20

```
int num1=99 //main code is here
Student st1=new Student("BOB",MATH,20); //create object on heap
method1(st1); //call method1
```

2

STACK MEMORY

STACK FRAME FOR METHOD1

static void method2(Student inStudent)

myNum 5

st2

inStudent

STACK FRAME FOR MAIN()

num1 99

st1

HEAP MEMORY

STUDENT

BETTY

CSCI

21

STUDENT:

ROBERT

MATH

20

```
int myNum1=1 //Method1 code is here
Student st2=new Student("BETTY","CSCI",21);
inStudent.name="ROBERT";
Method2(inStudent); //this call creates another stack "frame" for method2;
```

3

STACK MEMORY

STACKFRAME FOR METHOD2

static void method2(Student inStudent)

myNum **10**;
inStudent

STACK FRAME FOR METHOD1

static void method2(Student inStudent)

myNum **5**
st2
inStudent

STACK FRAME FOR MAIN()

num1 **1**
st1

HEAP MEMORY

STUDENT

BETTY
CSCI
21

STUDENT:
ROBERT
CSCI
20

```
int myNum1=10 //Method2 code is here
inStudent.major="CSCI;
```

STACK MEMORY

STACK FRAME FOR STATS METHOD

```
static int statsMethod(inInt)
```

```
    inInt 99 (copy)
    num1 1 (local variable)
    int result=(inInt+num1)*5
    result (pass back value 500)
```

STACK FRAME FOR MAIN()

```
    st1=null
    num1 99
    answer 500
```

```
num1=99
st1=null
int answer = statsMethod(num1);
```

HEAP MEMORY

STUDENT:
BETTY
CSCI
21

STUDENT:
BOB
MATH
20