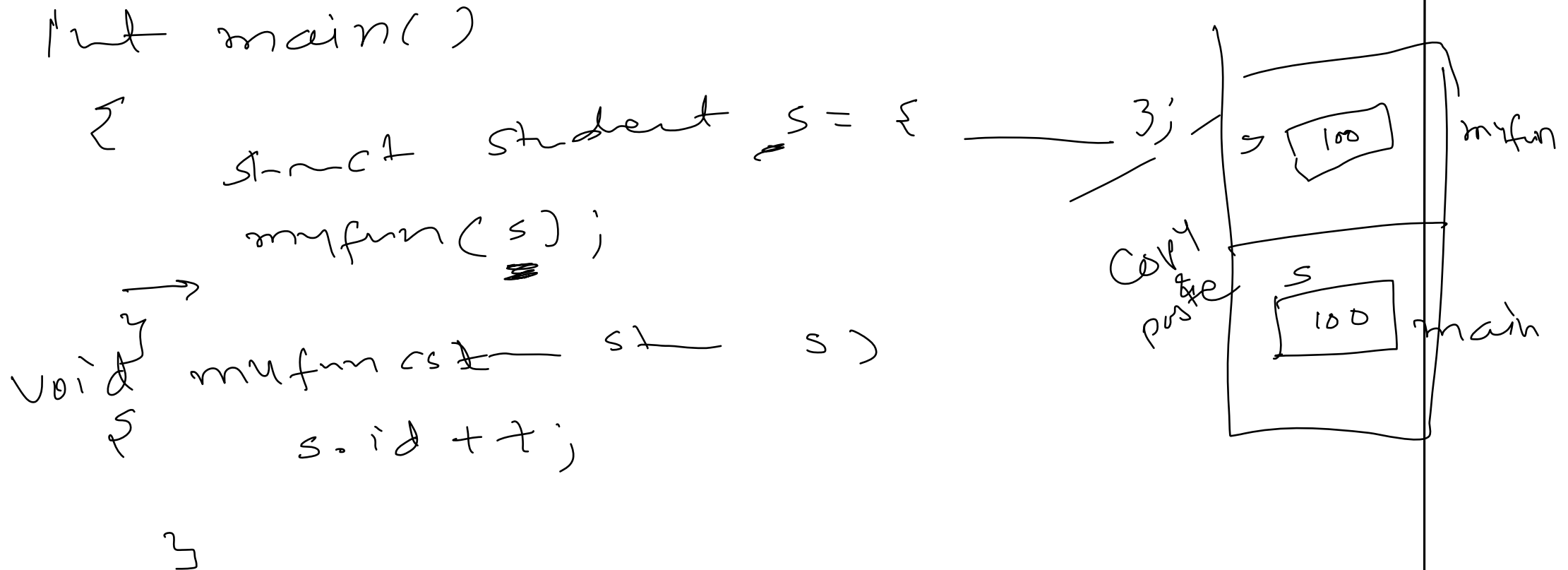


Let's solve it

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By default,
Structure variable is passed by
value when used as actual



```

int main()
{
    struct student s = { ... };
    myfun(&s);
    printf("%d", s.marks); // updated.
}

```

```

void myfun(struct student *ps)
{
    (ps->marks)++; // (*ps).marks++;
}

```

Syntactically no error. Logically error bcoz
local variable s gets destroyed

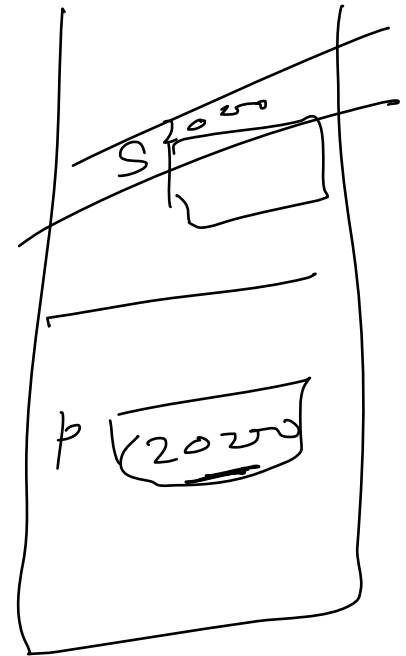
```
struct student * myfun2(  
    {  
        struct student  $s = \{$  local variable  
        struct student  $*ptr = \&s;$   
    }
```

return ($\&s$);

// or return (ptr);

```
    }  
    // or  
    struct student *p;  
    p = myfun2();
```

```
    p = ("id", p->marks);  
}
```



```

    st - student * myfunc (st - student * ptr)
    {

```

```

        ptr → marks;

```

```

        return (ptr);
    }

```

```

int main()
{

```

```

    st - student s = { ... };
    st - student * ptr;

```

```

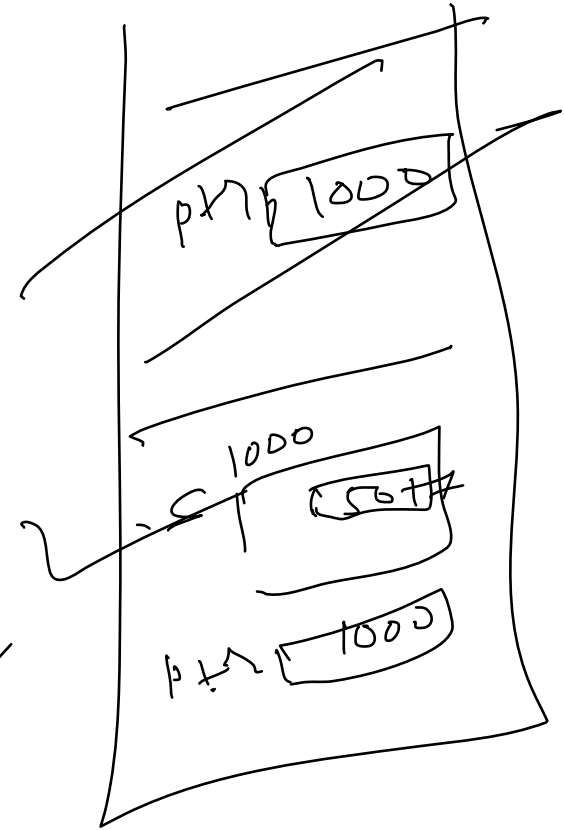
    ptr = myfunc (s);

```

```

    printf ("x.d", ptr → marks);
}

```



str stud *mfunk ()

2.

str stud *pt;

pt = (str stud *) // allocate
malloc (sizeof (str stud))

return pt;

}

main ()

{ str stud *p;

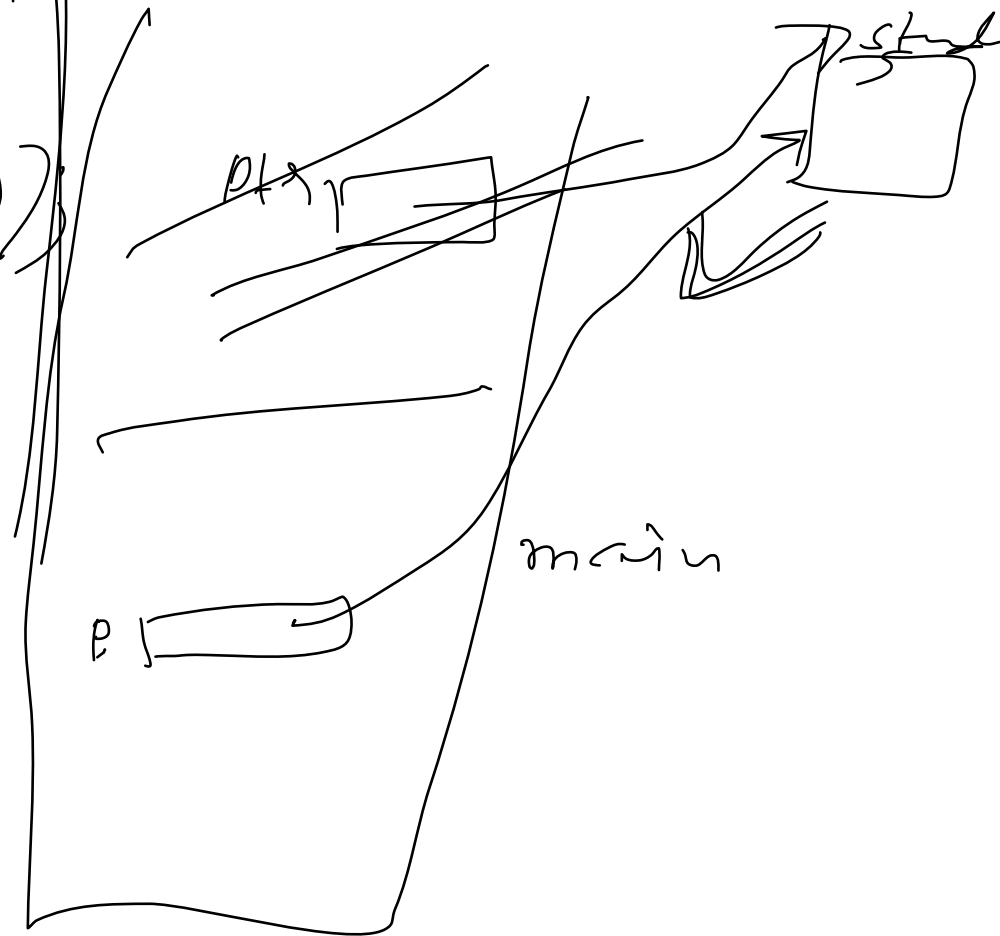
p = mfunk ();

printf ("id", p->marks);
free (p); // deallocate

}

Dynamic memory allocation

Heap



$ptr = \&s;$
 $s.name, \text{ said } \dots$
 ~~$(\&ptr) \rightarrow \text{float } x = 20.32;$~~
 ~~$(\&ptr) \rightarrow \text{float } x = 20.32;$~~
 $(\&ptr).name$
 $(\&ptr).id$
 $ptr \rightarrow name \dots$

```

struct NAME
{
    int count;
    float *p;
} *ptr;

```

ptr [1000] →



Arrow has higher priority

~~5000 + ?~~
~~20.32 + ?~~
~~1000 + ?~~

$(\&ptr) \rightarrow p$

$\&ptr \sim \&(\&ptr \rightarrow p)$

$sm = \&ptr \rightarrow p;$

$(\&ptr \rightarrow p) + x$

formal arg — s1, s2 are pointers only *, [].

char* strcpy (char ~~dest~~ *s1, char *s2) — // x=y (2 → 10)
 { source
 while ((*s1++ == *s2++) != '\0');
 } return Destination

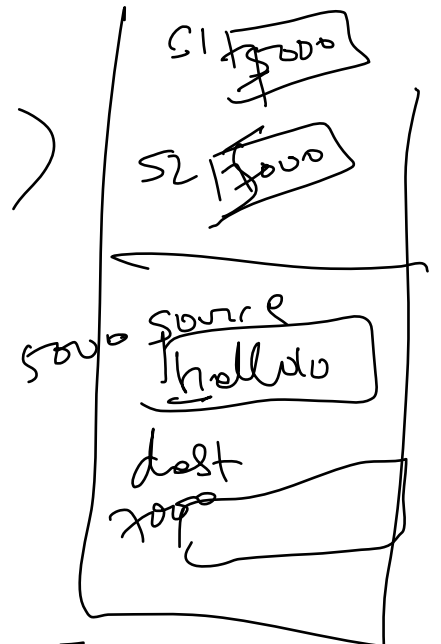
strcpy (char s1[], char s2[])

```

{
  while ( 1 )
  {
    if ( *s2 == NULL )
      break;
    *s1 = *s2;
    s1++; s2++;
  }
}

```

strcpy (dest, source);



char src[50], dest[50];

strcpy (dest, src);
 // hello

Address of
char Strat (~~char~~ Mohandas Kan Gandhi)

FN Mohandas mn LN

mn Kerachand

LN Gandhi

Strat (Strat (FN, mn), LN)

Strat
(FN, mn);
Strat
(FN, LN);