

Code - hello.c

— Memory layout

```
#include <stdio.h>
```

```
int main () {
```

```
    int i = 1;
```

```
    char a = 'a';
```

```
    while(i)
```

```
        i--;
```

```
    return 0;
```

```
}
```

Finally →
zero

		92
	0	88
	'a'	87

rbp₀ = 100
rsp = rbp = 92

Code- arr.c -

```
#include <stdio.h>
```

```
int main()
```

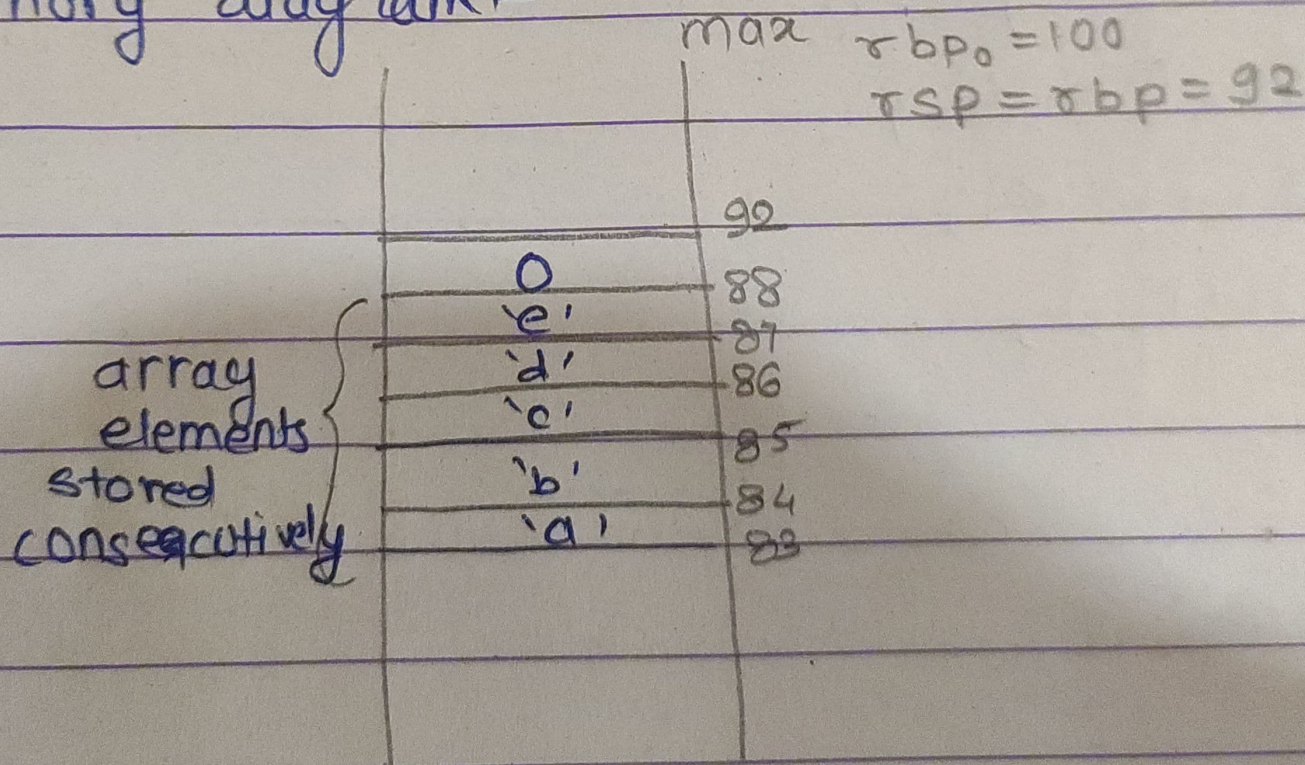
```
char arr[5] = {'a', 'b', 'c', 'd', 'e'};
```

```
int i=0;
```

```
return 0;
```

```
}
```

Memory diagram -



code - structures.c -

```
struct name {
```

```
    int i;
```

```
    char c;
```

```
};
```

```
int main () {
```

```
    struct name n1, n2;
```

```
    n1.i = 1;
```

```
    n1.ch = 'a';
```

```
    n2.i = 2;
```

```
    return 0;
```

```
}
```

Memory layout

