

Quiz 2 (submit to NINOVA)

Write a C function that creates a null-terminated string containing a render of a circle. `student.c` is given as follows,

```
#include <stdlib.h>
```

```
#include <math.h>
```

```
#define WIDTH 10
```

```
char* generateCircle(int x,int y,int rad)
```

```
{
```

```
    return screen;
```

```
}
```

- Use `.`(dot) for blank pixels and `+`(plus) for the circle pixels.
- The screen is `WIDTHxWIDTH` and the code should be generic (`WIDTH` will be changed)
- Built-in functions are not allowed. `printf`, `sprintf`, or any other lib function is not allowed.
- Your entire code should be only the `generateCircle` function, do not define

extra functions.

- You can only use the `malloc` function from `stdlib.h`
- and the `sqrt` function from `math.h`, no other function call is allowed.
- The function should return a null-terminated string
- You may change your font from the cmd window preferences to a square sized font. (Fig 1)
- Example outputs are shown in Fig 2 and Fig 3.

100p if your function works as expected

0p if your code does not compile

Only add your implementation to the given template in this PDF. Do not include a main file or change the functions arguments, return types. Your submission is

valid if you submit a valid c function file and if you submit a valid `student.c` file. Do not upload your main file.

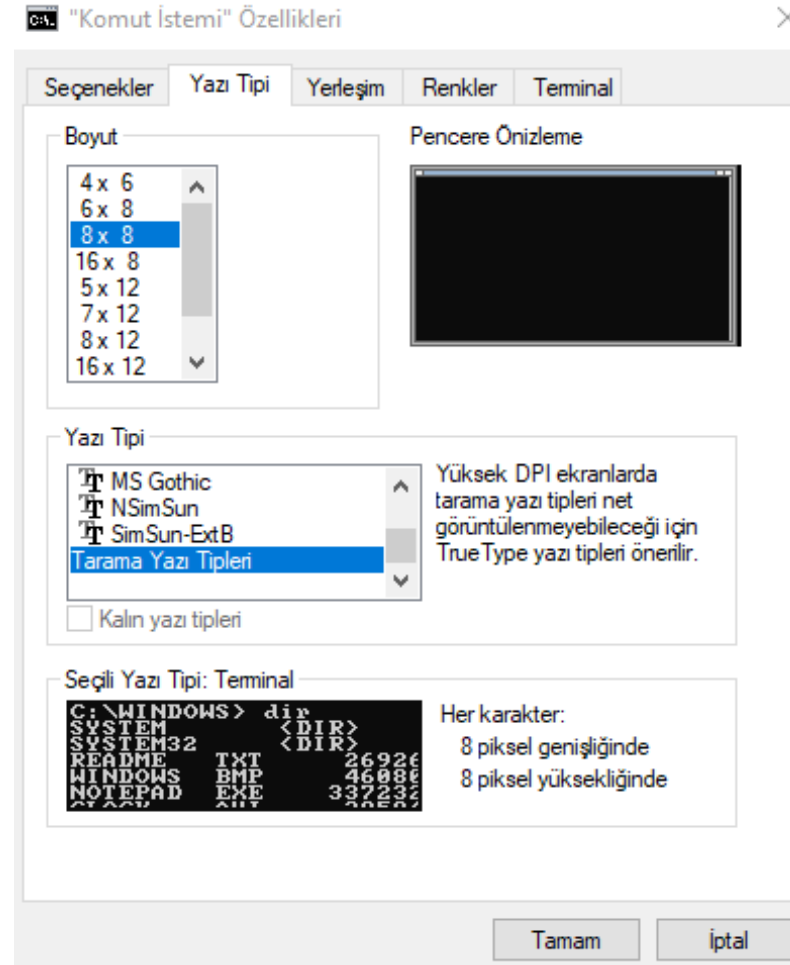


Figure 1: Square sized font

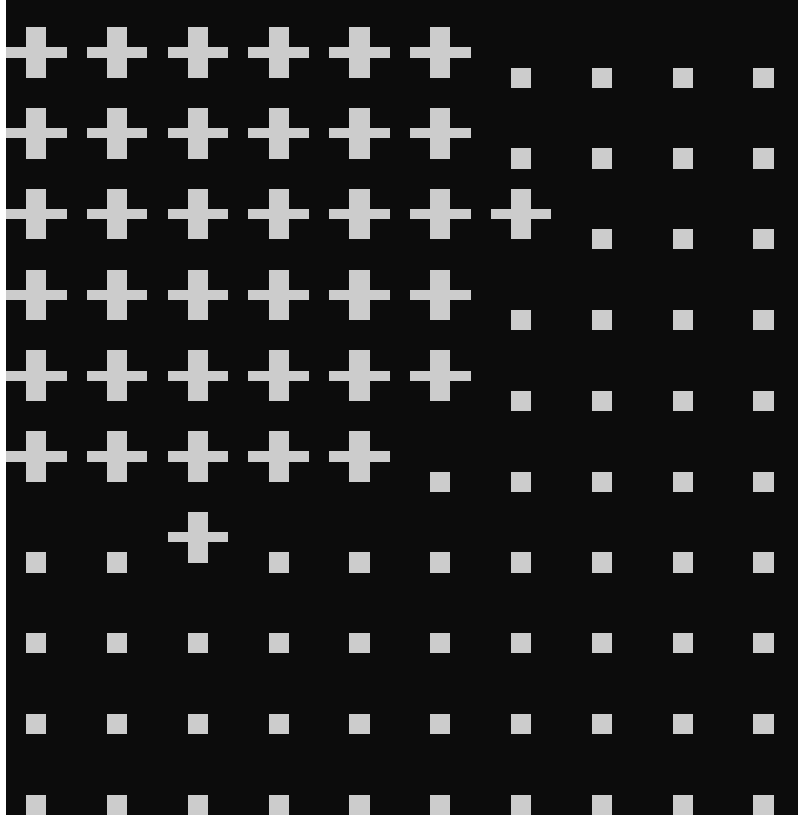


Figure 2: Circle for WIDTH=10, generateCircle(2,2,4);

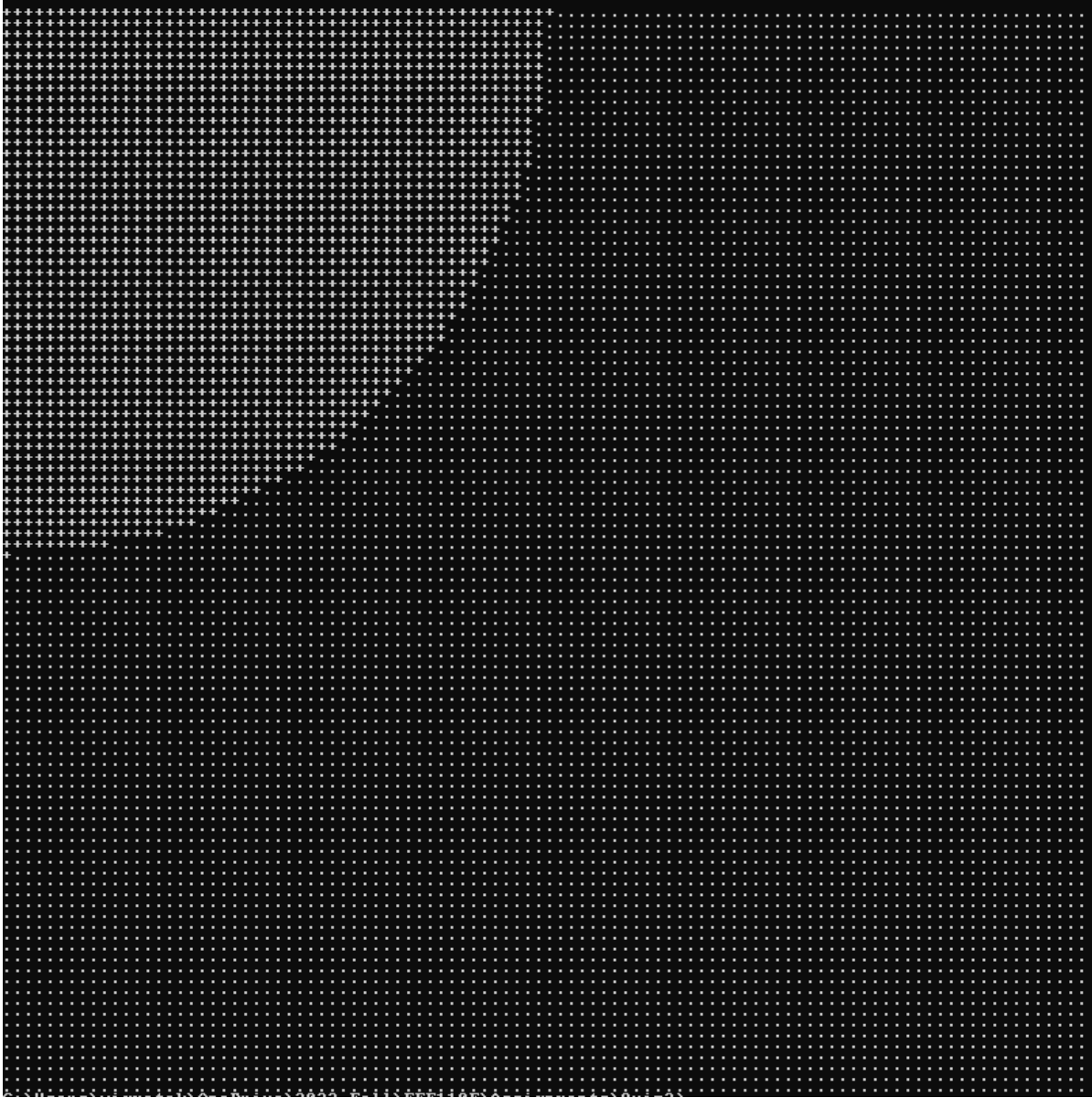


Figure 3: Circle for WIDTH=100 generateCircle(0,0,50)