

Exercise I

1. Draw the memory state and show the output of the following program:

```
#include<stdio.h>
void exo1 (char **pc){
    printf("%s", ++*pc);
}
int main(){
    char *s[] = {"black", "white", "pink", "violet"};
    char **p=s+2;
    exo1(p);
    return 0;
}
```

Exercise II

- A student is defined by a number and an array of five marks (each of which corresponds to the result obtained in the examination of a course). Define the structure "std" representing a student.
- Write a function "stat", having as input an array of students (representing an entire class), which displays:
 - for each student, his gpa, grade point average, and
 - for each course, the average of the class in this course, and
 - the overall average score of students in the class

Exercise III

4. Consider a linked list of identifiers (id) of persons, and their passwords (password). Write a function "setPassword" which takes into parameters such a list, a person identifier and its password, and changes the corresponding password, if the identifier already exists in the list, or otherwise, inserts a new corresponding node at the head of the list. Note that the identifiers are unique within the list.

Example: The following example shows the result of two successive calls to the function "setPassword." The first call is made on the list "head", the identifier 77345 and the password "newMe5." The second call is made to the same list "head", obtained after the first call, the identifier 72311 and the password "flower".

