

Pseudocode Binary Search

Procedure Binary Search Surname

```
if (condition == 1)
    printf "The List needs to be sorted"
    break;
end if

printf "Enter the Surname you want"
scanf search_key
int c;
while ((c = getchar()) != '\n' && c != EOF) // clear input buffer
    int check = binary_search(DT_mix, 0, size_array-1, search_key)
// perform check whether what you are looking for is in the list or not
if (check == -1)
    printf "Could not find Surname"
else
    printf "Student number" check+1
    printf "Firstname: Surname: ID: Course: "
    DT_mix[check].firstname, DT_mix[check].surname
    DT_mix[check].ID, DT_mix[check].course
end else
end if
int binary_search struct student DT[], int low, int high, char key[]

while low <= high

    int middle = (low + high) / 2
    if (strcmp(key, DT[middle].surname) == 0)
        return middle;
    else

        if (strcmp(key, DT[middle].surname) < 0)
            high = middle - 1

        else
            low = middle + 1
        end else
    end if
end else
end if
// in case the element is not present
return -1
end while
```