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Subject : PF

Assignment

```
#include <iostream>
using name space std;
    struct student{;
    int student_id;
      string name;
      int age;
    int grades [10];
    int num_courses;
    };
void   initialize (student*s, int id, const &
    name, int age, int num_courses, int
     initial grades[]){
    s-> student_id=id;
    s->    name =name;
     s-> age = age;
    s-> num_courses = num_courses;
     for (int i=0;  i< num courses, ++i){
       s-> grades [i] = initial grades[i];
      } }.
```

```
void display_student_details (const student*s)
 { cout << " student ID" << S-> student ID<<endl,
   cout << " Name" << s-> name <<endl,
  cout << " Age" << s-> age<<endle,
  cout << " courses" << s-> courses<<endl,
 cout << " Grades" ;<<
   for ( int i=0, i<s-> num_courses ;++i){
        cout << s-> grades [i]<<" ";
   }
 cout <<endl; }
 float calculate_averagegrade (int *grades,
 int num_courses ){
    int sum =0;
   for ( int i=0; i<num_courses; ++i){
    sum+= grades[i];
   } return static_cast <float> (sum)/num_courses;
  }
void add grade (int New_grade, student*s)
 if (s -> num_courses < 10){
      s-> grades [s->num courses ]=newgrade;
     s-> num_courses ; )
else {  cout << " cannot more grades"<<endl
}

}
```

```
int main(){
      student student 1;
      int initial_grades[]={85, 90,78};
    initialize (& student 1, 1,"hassan",18, 3,
    initial_grades);


  display_student_details (&student 1);
      float avggrade = calculate_average_gr
  (student 1.grades , student 1 num_courses);
   cout << "average Grade" <<avggrade <<end
    add_grade (& student 1, 88);


   display_student_details (& student 1),
    avggrade = calculate_average_grade
  (student 1.grades, student 1.num_course
 return 0;
}
```