
Computer Project File

Undergraduate (1st Year) EPITA

3 December, 2018

After reading this file, you will have all information in hand to get the highest grade possible. The only thing left to say is good luck and above all... Keep truckin'!



Christophe "Krisboul" Boullay

Objectives

Allowing you to put into practice all knowledge acquired in lectures, tutorials and practicals, but also to improve personal skills, which you have acquired for the project you have chosen, but which cannot be put into practice during the course.

Framework

The project is to be carried out in groups of four (and only four). Its duration is about seven months (from December to June). The content is open, that is to say, you choose the subject. This can be a Shoot'em Up, a puzzle game, a mathematical program, a set of software, etc.

Of course, it must be accepted by Christophe BOULLAY. He may refuse a topic or decide to add, delete or modify some elements (including during the year, depending on the progression of the project).

Restrictions

The project is developed in C# and/or CAML (possibly F#). The mandatory platform is WINDOWS, but nothing is stopping you from working cross-platform. You are free to choose any type of project. **For the game projects, the framework UNITY is required. For any other choice, you must get the permission of Christophe Boullay.**

Protocol

You have to find a group of four people, pick a name for the group, and choose a project subject. Then you have to submit the group name, the name and login of each group member, the project name and the name of the member you designated as a project leader (see deadline for choice of group). A project leader is required, among other things, as a contact for the jury.

You must provide a book of specifications. (See deadline for handing in the book of specifications.) It will be read! If it is not suitable for any reason (incomplete, unclear, uninteresting, etc.) it will be rejected or you will be asked to modify it.

In this case, you must provide a new one that takes into account all the remarks. The procedure is repeated until your specifications are accepted. (See deadline for validation of the book of specifications.)

Subsequently the project will go through a series of presentations (two) and a final presentation, all of which are graded.

Schedule

Deadlines

List of group members Friday, December 21, 2018

Handing in the book of specifications Friday, January 18, 2019 before 5 pm

Acceptance of the book of specifications Friday, February 1, 2019

Submission of the project report Friday, May 17, 2019 before 5 pm

The presentations

Presentations will last, except for the final one, 12 minutes. Presentations follow one another. Any delay will reduce your allotted time! You must, therefore, make a clear and precise presentation of the progression of your project. Consider providing significant details that correspond to our expectations. Presentations are held in rooms with a video-projector (not including computer rooms).

Presentation dates

- First one** : from March 11th to March 15th, 2019
- Second one** : from April 23rd to April 26th, 2019
- Final presentation** : from May 27th to June 7th, 2019

First presentation (11 - 15 March, 2019)

Important note :

The purpose of this presentation is to identify, once and for all and before the jury, the development framework of your project, meaning the definitive description of tasks for each student. So you will need to detail the specifications (presentation of the project, group, and task distribution) and your choice of execution.

An example of the progression for this presentation¹ could be :

Presentation of the project : 1 min.

- Description of the subject.
- New book of specifications if, :
 - Absence of schedule,
 - Substantial modifications (Group modification for instance),
 - Various imperfections

Presentation of the project schedule : 2 mins.

- Description of common tasks,
- Description of individual tasks,
- Description of the estimated future presentations (the next one is scheduled for the week of 23 April, 2019).

Presentation of the individual tasks : 8 mins, divided by the number of students.

- Bibliographical research (examples, methods, algorithms, etc.),
- Design (drawing screens, printing drafts, algorithms, interfaces, programs, etc.)

Conclusion : 1 min.

- Reminder of what is done
- Reminder of what is to be done
- ...

Notes :

During the first presentation, there must be some programming code. You cannot present only research elements (bibliography) or design (algorithms). Therefore, in order to show what you have accomplished, have everything prepared before the presentation. Any time lost is lost for good.

1. The organization is defined by each group and must present all the points listed above. An outline of the presentation must also be given to the jury at the beginning of each presentation.

Second presentation (23 - 26 April, 2019)

The purpose here is to present the work done since the previous presentation. It is no longer about development or thinking about options. You have achieved something and are explaining it².

MOREOVER, FROM THE SECOND PRESENTATION YOU MUST SHOW A WEBSITE THAT WILL GROW WITH YOUR PROJECT (IT WILL HAVE TO BE PRESENTED EACH TIME).

An example of the progression for this presentation could be :

Introduction

General overview of the project : 2 mins.

- General progress of project,
- General progress of website,
- Problems encountered :
 - Production,
 - Atmosphere of the group,
 - Etc.

Individual presentation : 9 mins, divided by the number of students.

- Tasks to do,
- Tasks accomplished,
- Etc.

Conclusion : 1 min.

- Reminder of what has been accomplished (according to book of specifications)
- Reminder of what remains to be done
- ...

Note :

It is obvious that you need to choose one representative per group to supervise the general presentations. This work concerns the group performance and group grade only. The representative's individual grade is not affected by this work. He or she must be a good speaker, but need not be the one who was chosen as the project leader, nor need it be the same person for each presentation.

Final presentation (27 May - 7 June, 2019)

The purpose here is to show all the work done over the year. It will last 25 minutes and could be organised like this :

Turning in the various elements of the project : 1 min.

- USB-KEY in a case (Custom cover slipped under the USB-KEY case),
- Project Report + appendix (on paper, bound, typed),
- Installation Manual and Operating Manual (on paper, bound, typed)

General overview of the project : 2 mins.

- Brief summary of subject,
- A brief history of previous presentation,
- Presentation of surviving members (if applicable).

Project demonstration : 15 mins.

- Installation (have an installed version, if it does not work properly),
- Presentation of work done :
 - General,
 - Individual (Who did what).
- Uninstallation

2. For those of you who have not yet understood.

Website presentation : 5 mins.

- Quick tour of site,
- Who did what on website.

Conclusion : 2 mins.

Required Documents

At the start of the project you must provide :

- A book of specifications.

At each presentation you must provide or show :

- An outline,
- A report,
- A website.

At the final presentation you must provide :

- An outline,
- A report (To be handed in on friday May 17th, 2019),
- An operating file,
- The project,
- A website,
- The installation procedure.

The book of specifications (at the start of the project) 10 to 20 pages

The outline should highlight the following elements :

Origin and type of project : Where did the idea for this project come from, what kind is it?
Game, Utility Software, Image Processor, etc.

Object of study : What are the goals and interests of the project? What can it bring you as a group or individually?

State of the art : What is the first software/game of this type? What are the most famous other softwares/games of this type (name at least three of them)? What are their strengths? What are their specific features?

Parts of the project : Who will do what in the group? Task division, but also dividing the project into parts if necessary. As an example, for a Blender like software you could have the 2D editor, the 3D editor, the hardware manager, the host, etc.

The structure should, through the outline presented above, define your project using the following aspects :

Functional : What is it or should it be. The WHAT!

Technological and methodological : What material resources (technological) and intellectual (tools, methods, software, etc ...) will be used. The HOW!

Operational : What economic aspects (costs, time, etc.) related to operating situations (operations) must be taken into account? The HOW MUCH!

The presentation must meet the following requirements :

- Have an introduction (1 page minimum) that states the main points of the specifications in order to provide an overview to the jury. It should emphasize the objective of the project and emphasize its ultimate goal.
- Present the structural aspects developed above.
- To be extremely clear, use short and precise sentences.
- Have a conclusion.

Note :

Distribution : The book of specifications must contain a detailed schedule of task distribution per person. You will present it in the form of a two-way table (tasks, members) with two people per task : the one in charge and his substitute.

Progression : The book of specifications must contain a detailed schedule of work completion per period (time between two presentations). You will present it in the form of a two-way table (tasks, presentations) with a completion percentage.

An outline (for each presentation)

The outline will list every key part and show how your presentation will be conducted. This clearly means that preparation is necessary (at least for time management). The outline is handed in at the beginning of each presentation.

A report (for each intermediate presentation)

A twenty-page report (minimum) detailing what has been carried out since the last presentation or since the submission of the book of specifications. The layout¹ can be similar to the project report described below. It is submitted at the beginning of each presentation and details what has been achieved (ahead of or behind schedule) and by whom, but also presents what needs to be done for the next time.

A website (for each presentation)

It must have a home page to allow access to the following elements³ :

- A project presentation (history, members, completion timing, problems encountered and possible solutions),
- The links on the website (members, software, images, sounds, libraries, applets and other elements you may have used),
- A download of the report and the project including a light version (without music files, avi files or other useless elements.)

A project report (prior to final presentation : Friday May 17th, 2019)

It must be submitted the week before the final presentation and must be 50 pages long excluding annexes (Project sources must be handed back outside the report). An acceptable layout¹ can be :

- Book of specifications follow-up,
- Different possible layouts :
 - Chronological (group),
 - Chronological (individual),
 - Individual (tasks distribution),
 - Others.
- Description of achievements :
 - Your joys,
 - Your sadness,
 - Etc.
- Appendices include :
 - Print examples,
 - Screen layouts,
 - Test cases,
 - Original sketches,
 - Etc.

Note : Whatever layout chosen for the report (chronological, individual, etc.), you must describe EXPLICITLY who did what.

1. All presentations whether oral or written must include an outline, an introduction and a conclusion.
3. If your site uses MySQL data base for example, you must always have a fully functional local version.

An operating file (for final presentation)

The operating document has to include the following elements :

- Installation manual,
- user Manual⁴.

The project (for final presentation)

The project (an executable file) must be given with the following :

- Source files,
- All libraries used.

Installation and uninstallation procedure (for the final presentation)

This must allow the installation of the project, the site and all related elements. Of course, a choice of elements to be installed must be available and it goes without saying that an uninstallation procedure has to be provided. On Windows, it should be accessible directly from the menu without having to go through "Control Panel, etc".

Presentation grading

First presentation

Grading is done according to individual and group performance, which means that grades are individual but group performance may influence them.

Group grade (18 points) coeff. 1:

Beginning of presentation:

Presentation report handed in (20 pages minimum): 3 points

The specifications are up to date (if necessary) : 3 points

Work done:

On schedule : 3 points

Quality of work : 3 points

Ahead of schedule : 3 points

conclusion of presentation: 3 points

Individual grading (30 points) coeff. 2:

Beginning of presentation:

Ready to start (On site but not ready to present): 3 points

Work done:

On schedule: 3 points

Quality of work:

Finishing : 3 points

Accuracy : 3 points

Comprehension : 3 points

Ahead of schedule: 3 points

Quality of presentation:

Clarity : 3 points

Accuracy : 3 points

Rhythm : 3 points

Conciseness: 3 points

4. Contextual help should be integrated with the executable file of the project.

Second presentation

Grading is done according to individual and group performance, which means that grades are individual but group performance may influence them.

Group grade (24 points) coeff. 1:

Beginning of presentation:

Presentation report has been handed in (20 pages minimum): 6 points

Website progress: 3 points

Website quality : 3 points

Work done:

On schedule : 3 points

Quality of work : 3 points

Ahead of schedule: 3 points

Concluded presentation: 3 points

Individual grading (30 points) coeff. 2:

Beginning of presentation:

Ready to start (On site but not ready to present): 3 points

Work done:

On schedule : 3 points

Quality of work:

Finishing : 3 points

Accuracy : 3 points

Comprehension: 3 points

The student is ahead of schedule: 3 points

Quality of presentation:

Clarity : 3 points

Accuracy : 3 points

Rhythm : 3 points

Conciseness: 3 points

General notes about the presentations :

Grades are from 0 to 3. The representative's performance does not affect his own grade but only the group grade. On the other hand, students' grades will influence the overall impression and, therefore, the group grade.

Final presentation

This grading is different from previous presentations and is done on an individual basis only. Group performance is implicitly taken into account in this grade and so will be directly graded out of 20.

Present and ready to go - Introduction - Project overview (0.5 point)

Project quality (13 points)

Website presentation (3 points)

Submission of the various documents of the project (3 points)

Conclusion (0.5 point)

Notes :

FOR ALL PRESENTATIONS :

THE DEADLINE FOR HANDING IN DOCUMENTS WILL BE STRICTLY RESPECTED. POINTS WILL BE TAKEN OFF FOR LATE DOCUMENTS.

THERE WILL BE NO MODIFICATIONS CONCERNING DATES AND TIMES. YOU MUST BE AVAILABLE AT ALL TIMES DURING THE PRESENTATION TIME SLOTS.

FOR FINAL PRESENTATION :

IN ADDITION TO THE HARD COPY VERSIONS, ALL ELEMENTS MUST BE GIVEN ON A USB-KEY THAT INCLUDES FULL INSTRUCTIONS IN A CLEAR DIRECTORY, THE ROOT OF WHICH IS THE NAME OF THE PROJECT.

FOR THE PROJECT :

DO NOT BELIEVE ANYTHING THAT THE SECOND-YEAR STUDENTS HAVE TOLD YOU OR WILL TELL YOU!!!

IF IN DOUBT, OR FOR ANY PROBLEM THAT ARISES, COME AND SEE ME IN MY OFFICE TO GET THE REAL STORY.