



MANAGEMENT PLAN AND EVOLUTION OF THE AIM GAMES PROJECT

Software Engineering & Professional Practice

Group 7 AIM GAMES PLATFORM

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Version History

Version	Author	Changes	Date
1.0	Jorge Manuel Molina Domínguez	Initial version	03/14/2019
1.1	Jorge Manuel Molina Domínguez	Added First Sprint documentation and changed title	03/29/2019

1. Project justification

Videogame development companies do not have easy access to different resources (graphic engines, courses on any technology, 3D assets, etc ...) or sufficiently qualified staff or people interested in the development of video games despite existing more than 1000 national studios.

AIM GAMES seeks to be the meeting point and search for all companies or people looking to work in the world of video games offering various resources and organizing different events or challenges.

2. Core use cases and MVP

2.1 Core uses cases

An anonymous actor can register to the system as a business or a freelancer

A business can create job offers

A business can pay to have access to all the features of the application

A business can list the curriculums posted by the freelancers

A business can see the details of the curriculums

A business can open a new thread in the forum

A business can answer to an existing thread of the forum

A freelancer can list all the job offers created by the businesses

A freelancer can create his own curricula with a high level of detail

An administrator can verify curricula

An administrator can take down fake/spam/inappropriate offers and curricula.

2.2 MVP

A business can post an event advertisement

A business can post a challenge that freelancers can fulfil to opt in for a job

Every actor can see the events posted by the business

Every actor can send messages to other actor

An anonymous actor can login into the system with an existing account

2.3 Mock-ups and UML

Look attached folder Mockups and the UML

3. Cost and profit analysis

3.1 Costs

3.1.1 Direct Costs

Personnel costs

The personnel costs are the result of the sum of the gross salary and the social costs (business share, different taxes, etc..) which is near a total 29,9% according to the current laws for the year 2019.

The 8 team members will have a work load of 150 Hours per member and the total personnel costs will be:

Name	Roll	Cost/hour	Inverted hours	Gross Cost	Social costs	Total
De la Fuente Bonilla, Fco. Javier	CEO, Project Manager	25€/h	150h	3750€	1124.63€	4874.63€
Molina Domínguez, Jorge Manuel	CCO, CIO	22,73€/h	150h	3409,5€	1022.51€	4432.01€
Bizcocho González, Mario	CMO, Speaker	22,73€/h	150h	3409,5€	1022.51€	4432.01€
Monteseirín Puig, Alejandro	Full-stack Developer	18,54€/h	150h	2781€	834.03€	3615.03€
Pérez Piñero, Iván	Backend Developer	15,37€/h	150h	2305.5€	689.35€	2994.85€
Arenas, Antonio	Frontend Developer	15,37€/h	150h	2305.5€	689.35€	2994.85€
Santos Batista, Miguel	Full-stack Developer	18,54€/h	150h	2781€	834.03€	3615.03€
Pazo Jiménez, Pablo	Backend Developer	15,37€/h	150h	2305.5€	689.35€	2994.85€
				23047,5€	6905.76€	29953.26,75€

Other direct costs

Quality control reports may have an impact on several tasks, and 10% of the total gross salary is applied to cover this cost, being in total 2304,75€

Summary of direct costs:

Gross salary Costs	23047,5€
Social costs	6905,76€
Other direct costs	2304,75€
TOTAL Direct costs	32258,01€

3.1.2 Indirect Costs

For the indirect costs generated by the personal work of the project and basic needs in fungible material, a charge of 1% of the direct costs will be applied, totalling 322.58€

3.1.3 Reserves

A 10% reserve is applied to cover the personnel costs generated by the possible increase in working hours due to problems during the development, totalling 3258.06

3.1.4 Benefit

According to the experience of the team in this type of projects and high competence in development of web information system it is decided to apply a 15% benefit on the direct and indirect costs of the project, 4887,09€

3.1.5 Summary

Concept	Amount
Direct costs	32258,01€
Indirect costs	322,58€
Reserves	3258,06€
Benefit	4887,09€
Total without VAT	40725,74€
VAT (21%)	8552,41€
TOTAL	49278,15€

3.2 Profits

The first and bigger return of capital can come from aids from the Ministry of Culture and regional governments because we are an association, we are eligible for “Aid for action and cultural promotion” (<http://www.culturaydeporte.gob.es/servicios-al-ciudadano-mecd/catalogo/cultura/becas-ayudas-y-subsenciones/ayudas-y-subsenciones/industrias/accion-promocion-cultural.html>)

), this aid can give us from 10000€ to 90000€, numbers that can cover an important or the total part of the initial cost.

The second way to get capital is give sublicense administrative access to other associations to create a partnership with them which will result in the association growing more.

The last initial way to get capital and the principal one is a company membership fees plan which we will offer personalized rates to different companies because not every small company can pay the same than bigger ones. With this membership, the companies will have access to everything that we have to offer.

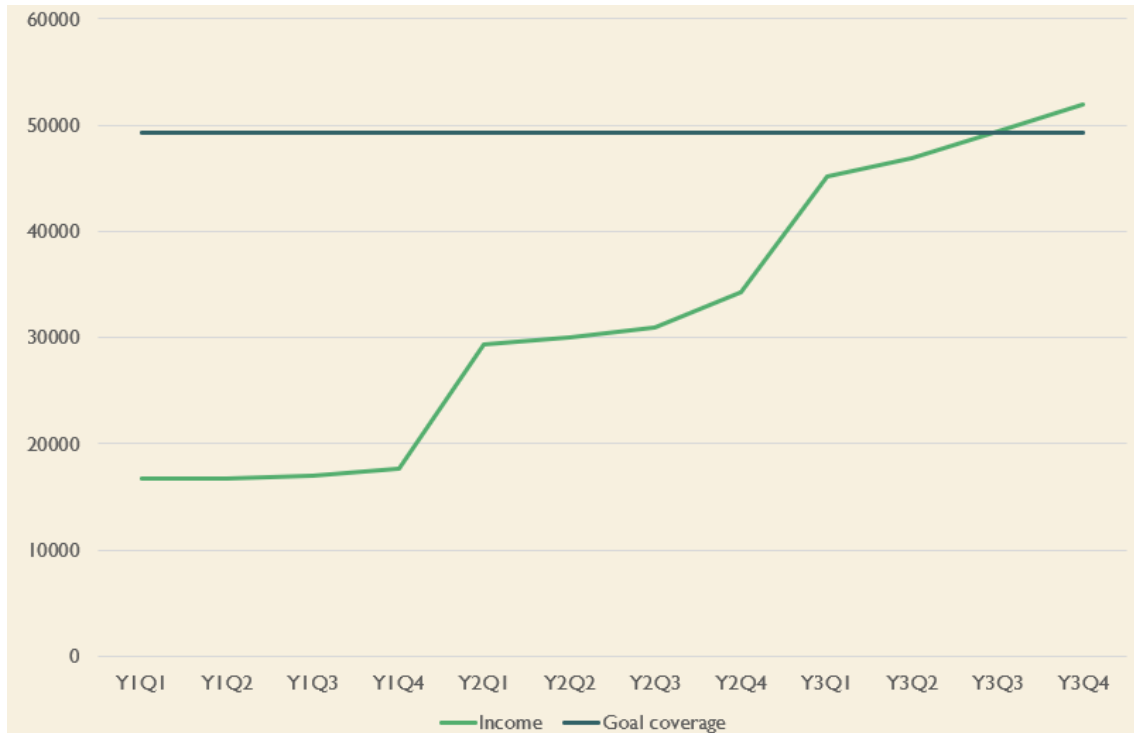
One example is the next one:



In the graphic we can see different companies that we offer different prices, but we could have and average income of 71€ in the initial months.

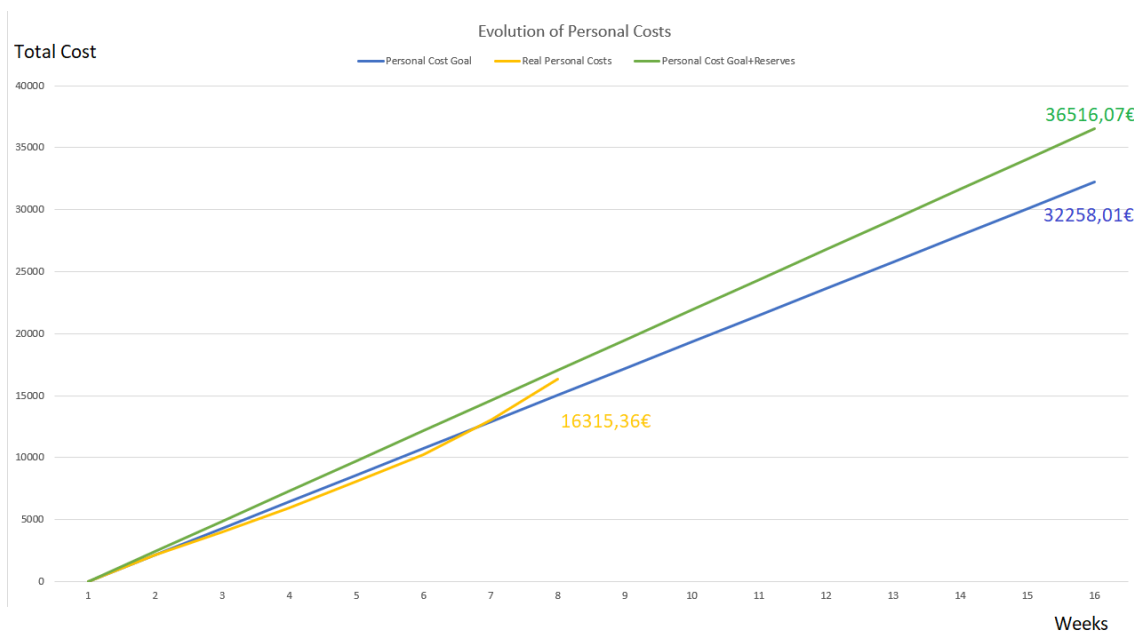
These companies are only an example of possible clients that we have asked how much they would pay for a service like ours.

If the aids from state and regional governments are considered, and we project a conservative studio subscription rate, we can expect to fully cover the cost of the project by the 3rd quarter of the 3rd year in the market.



3.3 Evolution of personal costs after the First Sprint

We will focus at how have incremented the cost of the personal cost because it's the only important thing in the budged that can have big variations from the estimated.



We had estimated a personal cost of 32,258.01€ (the blue line)

Like we can see with the yellow line (the real personal cost), during the time previous of the first sprint we only varied positive from the estimated but when we started the first sprint we have saw that we worked more from the estimated because we are using a new technology and didn't predicted correctly how much time we would consume in the task.

Despite everything we are at least in the range of the budget that contemplate the reserves for this type of problems, that joined with the estimated personal cost are a total of 36516.07€ (green line)

4. Development plan

4.1 SWOT

To know how we should organize ourselves in order to be successful:

<u>STRENGTHS</u>	<u>WEAKNESSES</u>
<ul style="list-style-type: none"> -Current technologies -High motivation and commitment of the team -Specific services for a sector, which allows development focused on defined objectives -Flexible organization allowing a free schedule and place of work 	<ul style="list-style-type: none"> - Limited initial capital. - Some members are not familiar with some technologies -Lack of work experience
<u>OPPORTUNITIES</u>	<u>THREATS</u>
<ul style="list-style-type: none"> -Currently there is no specific service like ours in the market -State financing -Many of the users of the sector use social networks which is compatible with the idea of partnership and an opportunity for expansion -Collaboration with other associations, such as AEVI, to expand strongly in the national territory -The target sector is a nearby community, which makes it easy to globalize the platform 	<ul style="list-style-type: none"> -Association is not very well known. -Possibility of appearing a new competitor or Stratos extends its application to offer a similar or better service than ours -Limited purchasing power of the target sector due to being mainly focused on small to medium-sized studies

Like we can see we have more Opportunities than threats, so we have great hopes for the success of our project.

With the main immediate risk that is the lack of knowledge of some technologies, we have started to solve it with the start of a learning plan for Django at the start of the 1st Sprint

4.2 Methodology

We will work with Scrum for the duration of the 3 Sprints of 2 weeks each. At the start of the sprint we will create the sprint backlog and have a sprint review each Wednesday, and the next day of delivering the progress to the teachers of ISPP, we will have the sprints retrospectives.

We will use Telegram for the immediate communications of the team, and Discord for every reunion that can't be done face to face.

For the project management we will use Trello and its formula of Kanban board.

For the time management we will use clockify because it has a free extension for Trello.

For documentation management we will use Google Drive.

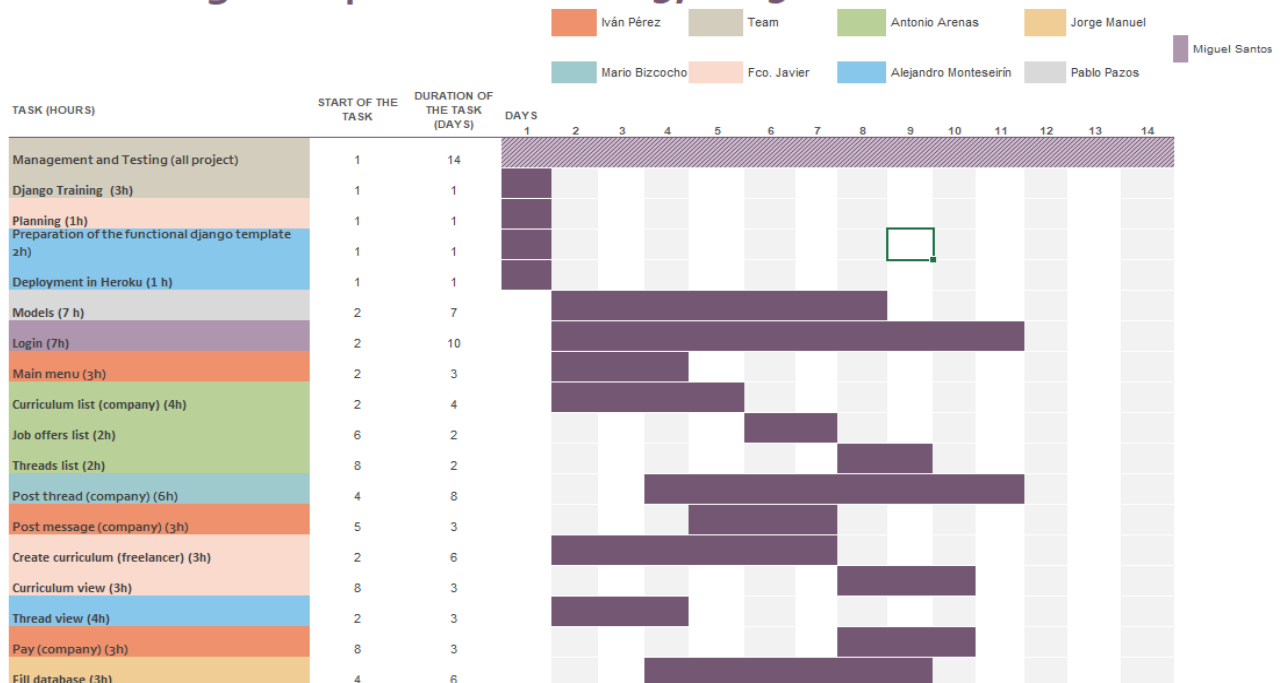
And for code repository we will use GitHub.

4.3 Sprints Planning and First Sprint Plan

The first Sprint, March 18-29, we will develop the core uses cases, in the second Sprint, April 1-12, we will finish the develop of the MVP, and we will start a pilot plan to get feedback and at the third Sprint, April 22- May 3, we will polish the MVP with the feedback that we will have obtained during the pilot plan.

After a first meeting It was decided the following first Sprint planning:

Gantt Diagram Sprint 1 Mar 18-29, 2019



Django Basic Course: The majority of the team is inexperienced at Django, so a basic course will be conducted by Alejandro Monteseirín, whose knowledge of the technology is greater than the rest of the team. It is foreseen an average duration of about 3 hours that will be carried out as the first activity of the sprint to have a base to work on.

Planning: At the beginning of the sprint and together with the course of Django, the small modifications to the previous planning that may arise after the course and the first impressions of Django will be adjusted.

Preparation of Django's functional template and deployment in Heroku: In conjunction with the basic course, Alejandro Monteseirín will be responsible for preparing a base template for the project on which the entire team will work. In addition, it will deploy this template in Heroku to be able to do so without worrying about maintenance tasks of the servers.

Models: Pablo Pazos will be responsible for the implementation of the project models, this being one of the most complicated tasks of the project and thus deciding a duration of about 7 hours that will be developed throughout the first week of the sprint.

Login: Miguel Santos will be responsible for this task that includes both the page to register in the application and the corresponding to access it from each of the roles.

Main Menu: This requirement is implemented by Iván Pérez and will develop the entire view of the page of users who have just accessed the application.

List of resumes, job offers and threads: Antonio Arenas will develop all these lists. The planning of hours carried out corresponds to a foreseeable lack of experience in the first of the lists to be developed and the consequent speed acquired for the following.

Post Thread (company): Mario Bizcocho will combine his role as speaker with this requirement since, being our Product Owner in our Scrum configuration, he knows the ins and outs of the forum and the needs of the company. When having to reconcile with another role, this will be your only development task.

Post Message (company): Aided by the feedback of our Product Owner, this requirement will be developed, which is supposed to take about 3 hours since Iván will have previous experience with the main menu and it should not be a problem.

Create Curriculum and view curriculum: Fco. Javier will develop both requirements when dealing with all about curricula. A total of 6 hours is calculated for the entire process of both.

See Threads: Alejandro Monteseirín with the experience acquired in the past on Django will be in charge of being able to visualize the threads of the forum. It is estimated about 4 hours since, despite being able to do it in a considerably less time, it has been preferred to leave the planning in order to use part of that time to help the rest of the team with doubts about Django.

Pay (company): Iván Pérez, with the experience gained in carrying out his previous requirements, will work under the supervision of Alejandro Monteseirín to develop the payment of the companies. The 3 hours calculated for this requirement are almost entirely for the action itself to pay as there will be little incidence in terms of views and these can be done quickly.

Fill database: Jorge Manuel will do this task in combination with his CCO role. Due of his great occupation in his other role, he will only take care of this task. Although it is a heavy task, it is repetitive and does not require much specialization in any technology so it has been calculated that in about 3 hours must be finished.

Throughout the sprint, management tasks will be carried out if a change in the initial planning is necessary, as well as various testing tasks will be carried out. It should be noted that the team has decided to take their planning to finish the sprint 3 days before the official end of the sprint in order to face any eventuality.

4.4 First Sprint Execution

We have finished with success the first sprint because we have completed all the task that we had contemplate for it.

During the first sprint we have done a sprint review at Friday 22 to look at how is going the sprint and pinpoint the problems that have been showing up to decide what to do to get a solution.

Finishing the sprint, we have done a reunion at Friday 29 to do the sprint and sprint planning for the second sprint.

The meeting minutes of both meetings are the in the attached folder Meeting Minutes.

4.4.1 Principal Problems and solutions

During the development we have found some problems, but the principals ones were:

1º Need of a populate scrip:

At the beginning of the development we found ourselves in the situation of having to restore the database every time there was a change in the models due to finding an unexpected bug.

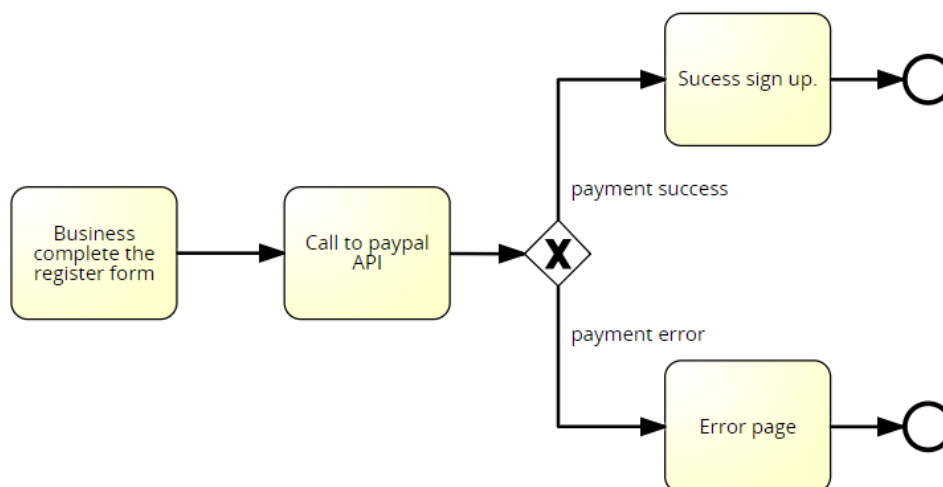
This produced the tedious waste of time having to re-fill the data base in order to re-test some functionality.

In the sprint review it was decided to change the task of filling the database of Jorge Molina, to the creation of a script that allows to inject data into the database easily and quickly.

2º Problems with PayPal:

During the implementation of PayPal, the question arose as to how to integrate the payment system.

After several meetings between the full-stack-developers it was concluded that it should be done during the registration of companies since payment is necessary for the registration of the company to be considered valid.



-flow of the solution decided for the integration of PayPal payment.

3º Problems with Git:

In the beginnings of the project some problems arose with the use of git (mainly conflicts), which considering the automatic deployment of Heroku, were priorities to fix. For that reason, a flow was decided that all the members of the group must follow for the correct functioning:

- 1º Pull project
- 2º Creation of local Branch
- 3º Add functionality / work on the project in that branch
- 4º Local testing
- 5º Pull and merge with the local branch
- 6º Push, once checked that everything works

4.4.2 Conclusions and lessons learned from the retrospective Sprint

We have had a hard first spring because the learning and use of a new technology and some minor coordination problems, but we could give solutions to every trouble that have been showing up.

We had several problems regarding conflicts because we were not using a defined structure of branches for developing our application and our main branch (where we all committed), was the one auto deployed in Heroku, also this made the Heroku database really unstable and we had to reset it several times. In order to fix this, we created a populate file so we could easily reset and fill the database within seconds. For the second sprint we are going to put in practice Gitflow, so we can reduce the conflicts to the minimum.

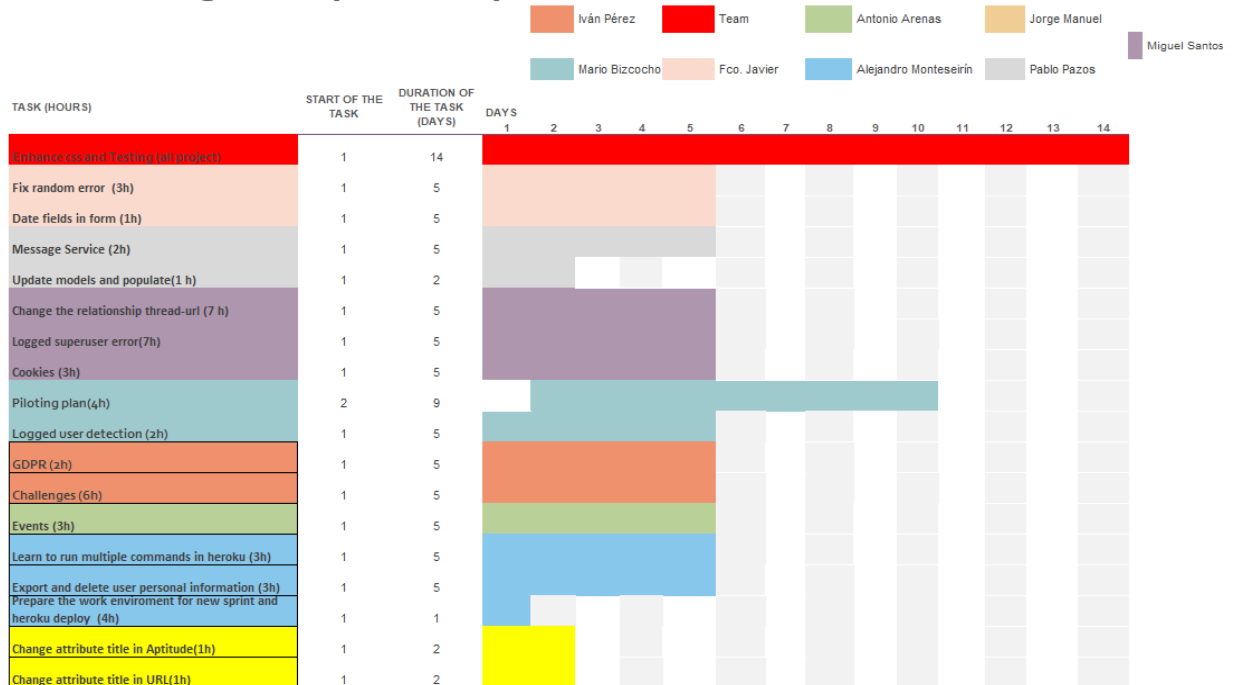
We think that we are prepared to tackle the second sprint without the problems of the first spring and finish the development of the MVP and carry out the piloting plan.

4.4.3 Second Sprint development plan

After the sprint retrospective we have prepared an initial plan for the second sprint.

We search to finish the MVP and execute the Pilot plan.

Gantt Diagram Sprint 2 April 1-12, 2019



Enhance CSS and Testing: Everyone will test everything along the sprint and enhance the CSS

Fix random error: Francisco will research about and fix a random error that we get that apparently doesn't affect our app functioning

Date fields in form: Francisco will fix CSS in date field forms

Message Service: Pablo will create the messaging system for the app

Update models and populate: Pablo will try to create a better populate script and update the models.

Change the relationship thread-URL: Miguel will research if it is better to change it to a collection of string instead of a relationship.

Logged superuser error: Miguel Will fix a bug that affect to a logged superuser when try to log in without logging out first he gets an error.

Cookies: Miguel will create the notification and acceptance of cookies.

Logged user detection: Mario will research for a better way to identify the logged user.

GDPR: Ivan will include the GDPR in the signup and write our terms and conditions

Challenges: Ivan will do the listing and create challenges by a business

Piloting plan: Mario and Antonio will apply the piloting plan by giving the testing app to the pilot users and getting their feedback

Events: Antonio will do the listing and create events by an admin.

Learn to run multiple commands in Heroku: Alejandro will investigate this so we can have a better populating the deployment when we need test something

Export and delete user personal information: Alejandro will do the functionality so the freelances can export and delete their personal information.

Prepare the work environment for new sprint and Heroku deploy: Alejandro will create new branches so we can properly apply Gitflow

Control of 404 errors: Alejandro will customize a 404-error page

Change attribute title in Aptitude: Jorge will change it to a descriptive name

Change attribute title in URL: Jorge will change it to a descriptive name

5. Technologies

Our platform is based in Django python, which with the support of materialize.css for the frontend, allowing us to create a beautiful web design, very dynamic and totally responsive.

Our Database is PostgreSQL which is a powerful open source object-relational database and has a very easy and stable integration in Heroku.

For the deployment we will use Heroku, which is a cloud platform service that also offer a good scalability.

As for payments, we will use the PayPal API because of its simplicity and free developer access.

We decided in these technologies because we have experience with every of them but Django, but we have started a learning plan to solve that risk.

6. Team Composition

Our team is composed by:

Project manager: Fco. Javier de la Fuente is the team leader, in charge of the project review and guidance, also he must encourage the rest of the team and take actions if anyone is not correctly working. He lacks technology knowledge but compensate his inexperience in programming with strong management and talking skills.

CCO/CIO: Jorge Manuel Molina Dominguez oversees the interactions with other groups of ISPP and the documentation, he also communicates with all teams and help to organise the knowledge base, he also is in charge of the testing and the DB population of the platform.

Speaker/CMO: Mario Bizcocho Gonzalez, in charge of the marketing and sales department of the platform, he has a high English level and very high social skills, he also helps in the backend programming.

Full-Stack-Developers: First we have Alejandro Monteseirin Puig, probably the most skilled and experienced member of the team with the technologies, with more than a year of experience with materialize.css frontend and a lot of knowledge in Django, PostgreSQL and Heroku, he is responsible of the correctly working of the deploy and the platform in general.

Also, we have Miguel Santos Batista, who also have good programming skills and experience, he works with Alejandro in the main process of building of the platform.

Backend developers: Ivan Perez Piñero and Pablo Pazo Jimenez are in charge of the backend, they got less experience than our Full-Stack-Developers, but they will be supported by them constantly.

Frontend developer: Antonio Arenas, who have tons of experience in the frontend development and will be in charge of the frontend side of the platform, he also is responsible of the intuitive and responsive design of the platform.

7. Productivity metric and Punishment System

7.1 Productivity metric

Productivity is related with the number of completed task that have completed or helped to complete at the sprint.

We use:

$$\frac{C+H}{A} = P$$

C is the number of completed assigned tasks

H is the number of assigned tasks to other members, that have helped to complete

A is the total assigned tasks to that member

P is the productivity.

With this formula we can get values from 0 to 2, being $P = 1$ the ideal, $P > 1,3$ high productivity and $P < 0,7$ low productivity.

7.2 Punishment System

We have defined a Warning methodology.

Anyone can say that other deserve a Warning because he hasn't worked or has affect negatively to the project along this sprint and call for vote, if the half plus one of the team say 'yes', the person get a Warning. The vote has to be done at review or retrospective meeting.

If someone get 3 warnings that member is expelled from the team, exceptionally if someone that have 1 warning, can be expelled if 80% of the team vote to favour and if only that person have done something too grave.

You can lose a warning if a member completes without any problem all his tasks in any sprint.

8. Pilot study

We have 3 studios and 3 users that have compromised to test in a pilot plan our application, look attached folder “Pilot agreement” for their contracts.

8.1 Studios

Rafael Sánchez Cadena (TieSoft): Rafael graduated in Architectural Engineering at the University of Seville in 2008 and got into game making in 2014. He leads the development of “Inexplicable Deaths in Damipolis” at his studio in La Cartuja and is currently finishing the game demo. It is expected to come out in June, and the marketing campaign will start in the second half of March.

Daniel Jesús Marín Jurado (Dual Mirror Games) oversees Marketing and PR for Dual Mirror Games, the makers of the first-person space-combat game Readout: First Contact. The game is currently in development and without a set release date and is hosted in the same coworking space as TieSoft’s.

Rafael Casaucao Aguilar (Gunstar Studio) is the CEO and lead game designer for Gunstar Studio, makers of the already released Phobos Vector Prime. This is a top-down bullet hell game where you survive waves of enemies, and it has garnered a moderate following in its PS4 release. The studio is currently working on several smaller projects to gather financing for the next big endeavour.

8.2 Users

Alberto Sánchez is the vice president of AIM Games, and student of Information Technologies at the University of Seville. He’s currently in his third year of studies and looking for internships, with eyes set on carrying them out at TieSoft. He’s already collaborated with them in several cases, mostly in bug fixing.

Vinnicios Thyago Dias Taufner is a member of the directive board at Serious Games, the University of Seville’s game development association, and is in his fourth year of studies at Computer Engineering. He’s carrying out his internship at Fujitsu, but had he known about the existence of established independent game studios in Seville, he’d have chosen them over Fujitsu even for a lower retribution. He’s got double Spanish-Brazilian nationality.

Francisco Javier Sánchez Gata is AIM Games’ secretary and member of the board of directives at Serious Games. He is in his fourth year of Computer Engineering studies at the University of Seville, and lives in a student flat in Bami since he is natural of Extremadura. He has collaborated on occasions with TieSoft and is looking for a second company for his actual internship.

8.3 Open Beta

We also plan for an open beta testing in which we will get the opinion of 50 or more people about the design of the application to try to create the best possible intuitive design with the feedback.

9. Piloting Plan

9.1 Process

The piloting project will consist of two parts:

1º We will carry out controlled testing with our freelancers and customers with the objective of finding different bugs. Mario will accompany them and guide them to try and find bugs.

2º We will have an open UX testing of our application. It will consist of asking different students to try it in devices prepared for it, and we will prepare a list of premade accounts if they don't want to use personal information. Antonio will be with them if any problem occurs, but no guidance will be given. We will ask them to rate how comfortable and intuitive the interface is, what could make it more intuitive and if they have found any bug.

9.2 Purpose

With this plan we want to find:

- Find possible errors in the application
- Check that freelancers and businesses feel comfortable with the interface.
- Check if there is any factor that we have overlooked in the design of the application.
- Advertise our application at the school

9.3 Metrics

- Number of bugs found.
- Time spent figuring out how to carry out a task.
- General opinion on the use of application.

10. Competitor analysis

We will launch our platform in a market where it won't be alone, in this sector we found some competitors with whom we will have to deal to get our niche market. In our analysis, we compare our platform with other 11 websites or platforms that offer services like ours.

In this document we will keep in mind 7 features that our platform will have. The features are: a forum where base members and companies can talk, the verified CV service, the resource database, the direct message service, the courses section, the existence of companies' profiles and the sector focus.

We will take this chart as a starting point and explain in detail our differences with these platforms:

	AIM Games	Linkedin	Infojobs	Stratos	Icaro	Primerempleo	Jobrapido	Trabajos.com	Iberecoempleos
Forum	✓	✗	✗	✓	✗	✗	✗	✗	✗
Verify CV	✓	✗	✗	✗	✗	✗	✗	✗	✗
Share Resources	✓	✗	✗	✓	✗	✗	✗	✗	✗
Direct Messaging	✓	✓	✗	✗	✗	✗	✗	✗	✗
Courses	✓	✓	✓	✓	✗	✓	✗	✓	✓
Company profiles	✓	✗	✓	✓	✓	✓	€	€	✓
Sector specific	✓	✗	✗	✓	✗	✗	✗	✗	✗

Our first competitor is LinkedIn, in this platform workers can post their curricula and the legal representative of the companies can talk with them for negotiate a contract, also they offer courses in their platform. But LinkedIn is not sector focused, they don't verify CV data and don't have a resource database or forum either.

The second one is Infojobs, this platform is very similar to LinkedIn, the only difference is that LinkedIn the legal representative profiles while in Infojobs we found the companies' profiles, Infojobs don't have a direct message service either.

Now we will look to Stratos, maybe our biggest competitor because is the only one focused in our sector but they don't verify the CV Data or have a direct message system like us. It is important to highlight that the website looks very outdated and we can take advantage from that.

In the next tier we found Icaro is a platform to internships, it isn't a big competitor since its only feature is the companies' profiles and they are very insecure.

At the same level that Infojobs we found some platforms that offers the same features as Infojobs, they are Iberoempleos, Primerempleo or trabajos.com. Trabajos.com is slightly different since the company's profiles are a premium mode feature.

And last, we have Jobrapido, that only offers the company profile in their premium mode and is the least threatening competition.

11. Differentiation

Our platform will search the way to differentiate from our competitors, and we will make that difference based on 4 key points: an intuitive design, a credibility assurance, searchability and the collaboration between members and companies.

The first key point that will make the difference is an intuitive design under the members and companies will be able to navigate in a useful, functional and easy to use platform, doing easier every operation they could be able to do in our platform.

We will offer a credibility assurance that will secure that every CV will be genuine, so no member will be able to cheat in their CV and affect some company that could hire him to do some jobs and we will prevent that any member could upload any malicious file to our forums.

Another key point will be our searchability, our search engine will be an easy way to access any registry in our database and will provide a heuristic for providing the most relevant results first better than other platforms.

In our forums, the association' members and the companies will collaborate to make a bigger knowledge that will help other members or companies, exchanging technological resources or ideas.

12. Code repository and deployed application

The code repository and deployed application URLs, and every necessary count are in the attached document “README”

13. Charter of commitment

Every member of this team is committed to carry out the project with the goal of success with the highest quality possible and never give up in the face of adversity.

De la Fuente Bonilla, Fco. Javier

A handwritten signature in black ink, appearing to be 'Fco'.

Pérez Piñero, Iván

A handwritten signature in black ink, appearing to be 'Iván'.

Arenas Arenas, Antonio

A handwritten signature in blue ink, appearing to be 'A Arenas'.

Molina Domínguez, Jorge Manuel

A handwritten signature in blue ink, appearing to be 'Jorge'.

Monteseirín Puig, Alejandro

A handwritten signature in blue ink, appearing to be 'Alejandro'.

Bizcocho González, Mario

A handwritten signature in black ink, appearing to be 'Mario BG'.

Santos Batista, Miguel

A handwritten signature in black ink, appearing to be 'Miguel'.

Pazo Jiménez, Pablo

A handwritten signature in black ink, appearing to be 'Pablo'.

14. Signed in conformity

X

A handwritten signature in black ink, appearing to be 'JFB'.

Fco. Javier de la Fuente Bonilla
CEO, Project Manager

X

A handwritten signature in blue ink, appearing to be 'JMD'.

Jorge Mª Molina Domínguez
CCO, CIO

X

A handwritten signature in black ink, appearing to be 'MBG'.

Mario Bizcocho González
CMO, Product Owner