This documentation covers all the key points we have discussed with our clients during the meetings. We have documented our meeting in order track our progress and include anything that our clients want in the system

**First Meeting**

**07th October 2016**

**The Meeting Brief-**

Today we have met each other for the first time. We have started to analyse some of the projects. Our main plan has been to find four projects each and see whether all of us have agreed on at least one of them. However, before deciding which projects we should do we have tried to identify each other’s strengths and what we can contribute to the project individually. We have also tried to consider the kinds of projects we should choose and the layout of our presentation.

**The Four Chosen Projects**

* SaviTrav
* Travel Digital Dashboard
* Building Block
* AUDRI

These are the four projects we have come up with after looking at the project details. These are all the initial projects, however, we have also thought about choosing our own and finally considering the ones that everyone feels confidence with.

**Individual Contribution Towards the Project**

After finding out about everyone’s interests, strengths and weaknesses these are the roles we have come up with for everyone in our team.

|  |  |
| --- | --- |
| **Name** | **Contribution** |
| Niall | Managing data using MySQL or any other appropriate DBMS |
| Anthony | Extracting data from website and helping out with the GUI/ front end. |
| James | GUI/ visual appearance of the system/ app |
| Lukas | GUI/ helping with DBMS/ front end |
| Jaber | GUI/ visual appearance of the system/ app and Documentation |

**What Needs to be Done Before Next Friday**

* **Completing the CV-** Although we have all completed the CV, however, we have decided to give each other some feedback on our CV. This is to make sure that we are displaying all the skills which are required for the project that we want to do for this module.
* **EOI-** Writing the documents about why we have chosen the above mentioned projects is another task that we need to complete before next Friday. This document should be compatible with the skills that we have mentioned in our CV.

**10th October 2016**

**The Meeting Brief-**

* We have mainly discussed about the “Expressions of Interest” and the projects that we have chosen for this module. We have talked about each of the project and how we can use our skills to complete these projects. We have decided to choose the four projects that we chose last week. This is because these four projects require similar kinds of skill sets that we all possess.
* Looked at the “EOI” template and planned about making the “EOI” for SaviTrav. We have all chosen SaviTrav as our first choice. This is due to the fact that in our team, all of us have experience with Object Oriented Programming. Most of our team members have also worked with Android Studio which can be used for this project. The main purpose of our meeting today has been to decide what kind of layout we are going to use for our EOIs.

**What we Have Done so far**

* So far we have all completed our CVs and found out about each other’s skills and experiences. Reviewing each other’s CV has helped us making sure each other’s role for the project.
* Planning the “EOI” for two of our projects has been another task that we have managed to complete successfully. We are all positive about being nominated for SaviTrav, however, Travel Dashboard will be our second choice if we have not been chosen for the SaviTrav. To make sure that we are considering all the possibilities, we have revisited all of our chosen projects to understand the crucial steps we need to take for our presentation.

**What Needs to be Done Before Next Monday(17th)**

* Need to finish the “EOI”s for all the projects
* Need to enquire whether we need to do the “EOI”s for the four projects that we have chosen or do we have to pick the two projects that we like and the two projects that we don’t like.

**11/11/2016**

**What we have discussed today-**

* Finally we have been informed about the project that we are going to do. We have been chosen for the “Travel Dashboard” project which was our second choice.  Now that we have found out about our project, our main priority is to contact to our external supervisors. This is to understand their actual requirements. We have also been informed about our internal supervisor. Meeting with our internal supervisor is another task that we need to complete before having our meeting with the external supervisors.
* We have also decided to meet once a week- every Thursday to discuss our progress. This is to make sure that we are all up to date with our tasks and evaluate each other’s progress. During the meeting our main focus has been to find out how we are going to communicate with each other if we cannot meet face to face due to some extenuating circumstances.
* We have also emailed our internal supervisor who has agreed to meet us on 16th November 2016 at 09.15 am. This is why we have also concentrated on the topics that we are going to talk about in this meeting. We have planned that we are mainly going to talk about what we have done so far. However, we are also aware that we need to explain the project in more details to our internal supervisor. This is to check whether we all have understood the basic requirements of the project or not.

**What needs to be done-**

* Finishing off our Ethics checklist and share it with our supervisor
* Getting familiar with Git
* Listing all the agendas for our external supervisors.

16/11/2016

**What we have discussed today-**

* The main reason why we are doing the project
* Our internal supervisor has informed us about other software such as Power-BI or Microsoft Azure which also carries out the same functions that our external supervisors are looking for.
* We have also discussed the time frame that we have and when we should start the project properly
* We have also decided to meet our external supervisors to discuss about the requirements in more details.

**What needs to be done-**

* Meeting plan for external supervisors meeting.

25/11/2016

**Requirements**

The requirements have been gathered based on the project details that has been provided at the beginning of this module. However, the requirements have been analysed more in depth by having a face to face meeting with the external supervisors. After the meeting these are some of the requirements which have been gathered-

**Types of people using the system**

There are three types of users who are most likely to use the software-

* Finance
* Managers
* Procurement Manager

These are the people who are most likely to use the software. The main reason for **the finance** to use the software is to plan out how they can start saving money by reducing some expenses. **The managers** are going to use the software to find out which are the employees that spent most of the money travelling and how much they are spending every single time. **The procurement managers** are most likely to check the dashboard in order to find cheap deals for the employees, for example- if an employee goes to a particular place then the procurement managers can manage a deal with the hotel nearby that place and get discount for the employee.

**What they really want**

The company is mostly interested in looking at

* The cost/expenses of each staff member (in terms of travelling)
* The expense report needs to be approved by the managers before the employees get their money.
* Where are they visiting the most (i.e. the hotels/ a specific branch) Mainly interested in representations of data (charts) in order to see where are they spending most?

**How the flow of software should be**

1. **Login System-** Login system should contain the username and the password of the users. This is to help differentiating the different users for the software.
2. **The Allowance-** The allowance should show the managers how much employees spend and how much they are allowed to spend. This should be visible to both the managers and also the employees. If the employee spends more than they are allowed to then the system should produce warning messages.
3. The current status of the process(whether the report has been finished or submitted) should be displayed by the system. This is to make it easier for the system to display the graphs/charts.
4. **The report needs to be submitted in order for the managers to see the expenses.** So, the system should contain a section that indicates whether the report has been submitted by the employees and approved by the managers.
5. Making notes of what are the hotels and stuff are being used (the hotel stays and also the expenses.) So, there has to be a specific page that lists out all the expenses for an individual employee and also how much all the employees of a specific manager have spent on travelling.

**What needs to be done-**

* Our external supervisors need to send us the flowchart that illustrate how the data (about the travelling) flows in the company.
* They also need to send us the “Data Schema” which is relevant for this project in order to help us designing the database.
* Start building project plan up till December
* Login system prototype

**01/12/2016**

**What we have discussed today-**

* Today we have re-evaluated the project requirements that we have gained from our external supervisors. We have talked about the initial data schema that we can expect from the data that Dave will send us. This is because our main plan is to use a database to save the analysed data. The initial plan is not to make the database store all the data from the excel file. Instead, we have decided to only store the data after it is analysed. So, only the most crucial data such as the cost of the trip, the person who spent the most etc. should be stored in the database. This is to prevent storing irrelevant data in the database.
* Making the project plan before we meet our external supervisor next monday(05th). We are currently focusing on making user case for the project. Although, we have not received all the data/detailed requirement list from our client, however, we are currently making user case based on the requirements that we have gathered from our first meeting.
* Building initial prototype such as the login system is one of the most important task we are currently focusing on. This is because we have suggested to use the Agile methodology for our project. So this is why we need to make at least some sort of prototypes for our next meeting.

**What needs to be done-**

* Meeting plan for external supervisors meeting.

**05/12/2016**

**What we have discussed today**

* We have mainly discussed about the kinds of file we can expect from our clients. Dave has shown us the draft version of the file as he is still in the process of making the files anonymous due to the security reason. We have reevaluated their requirements again to find out whether we have missed any important functionalities that our clients want in the system.
* Our clients have emphasised on the importance of identifying the WBS code. The WBS codes represent the unique ID for each project. So, it is very crucial for us to use this code to differentiate the projects that belong to each manager.
* We have also started to program the login part of the system. Although, currently we are assuming that it will be only the managers who will use the software. So, we have only focused on building the system for the project managers. Once the project managers’ part is completed we will be focusing on the team leaders’ part which will be made for the leaders of each project.

**What needs to be done-**

* Making agendas for the next meeting
* Making presentation discussing what we want to present them on the next meeting
* Also making notes of what we need from our supervisors (such as files or dummy version of data)
* Start with designing the database and the GUI

**08/12/2016**

**What we have discussed today-**

* Re-evaluating the project requirements that we have gained from our external supervisors
* Still waiting for their data in order to evaluate it and then design the database.
* However, we have managed to make an initial design of the database based on the requirements that we have gathered.
* We have also managed to design the GUI of some of the pages that we are going to include in the software.
* Managed to split the work between each member of the group
* For example-
* **Anthony-** Will make the Report page that contains the
* **Jaber-** Will make the claim page (which can be used by the employees to claim the money) and also the approval page (which can be used by the managers to see whether the claim has been accepted or not.) Document the database and  GUI design.
* **Lukas-** Will design the pages on photoshop
* **Niall-** Will start the database
* **James-** Will make the diagrams such as sequence/activities and also the user stories.

**What needs to be done-**

* Planning for external supervisors meeting.
* Making sure that we complete the above mentioned tasks before 16th December 2016.

**11/12/2016**

**What we have discussed today-**

* We have finally received some files from ATOS. This file contains the typical schemas that we can expect from the company. The file that we have been provided contains only certain amount of rows. The reason for this is to help us understand the core concept and our client thought it would be good idea to concentrate on the schemas more than the data for now.
* The whole team has decided to go through the files within this week. We have already discovered some of the issues with the data while going through the file with our clients during the meeting. There are few issues which include having more than one data type in a specific column. This can erupt a lot of issues during the development stage of the program. This is because we have to manually program the system in a way that it looks for all the data types. There are also some issues with the data itself. This has been claimed based on the expense column which contains negative integers that should not be included in the first place. Our clients have agreed to analyse these problems to find out the reason behind these issues.
* We have also talked about the document that needs to be completed in order to list our plans in terms of deciding the main schema for our database.

**What needs to be done-**

* Planning for external supervisors meeting on Wednesday.
  + Listing agendas
  + Making presentations
  + Reviewing what we have done so far
  + Reviewing the design/asking about the designs of the pages
* Reviewing all the extra documentations that have been provided by Atos.

**24th January 2017- Meeting as a group**

**What have we discussed?**

* We have started our meeting by **reviewing the requirements** that we gathered last term. We have gone through the requirements ATOS gave us and started to make a list of the tasks we have started so far. These tasks include-
  + **Gathering requirements**
  + **Designing the pages (initial pages just for now)**
  + **User stories**
  + **Building prototypes based on the designed pages**

Although these are the tasks we have started so far, we are still planning to improve these tasks by evaluating these tasks with our external and internal supervisors.

* **Change of the design** is one of the issues we have discussed as a group in this meeting. This is because we have included some pages (in the design) last term that might be unnecessary. This includes mainly the claim page. We have found out that the company already has a software that allows the employees to claim the money and the main purpose of this project is to build  dashboards based on the data gathered by the company. So, this is one of the agenda that needs to be brought up when we have our next meeting with Atos. We have also designed another page that allows the managers to enter their details (such as their names, their roles etc.) in the system.
* **The Database designing** which we have completed at the end of our first semester has been discussed briefly as well. We have evaluated the database design with our external supervisors in our last meeting and they have promised us to give the schema for the database (which meets the criteria of the company.) However, we are currently trying to host our own database so that we can test it with our software. We are trying to host the database so that all of us can share the database instead of only one person (which is the issue we are facing currently.) This is one of the problems we are trying to solve as soon as possible in order to help us progress to the next stage. Our next stage has to be feeling out the details of the managers and trying to use the data in order to produce the graphs.
* We have also discussed about **the users** who are going to use the system. The users remain the same. These are-

1. The Higher Managers
2. The Managers
3. The Negotiator

So, to improve the system’s privacy we are only going to allow these three types of users to use the system.

**What we need to do next?**

* **Fixing the server side for database** is one of the most important issues that needs to be solved immediately. Our team member, Anthony is currently trying to host the database from his account and hopes to solve this issue by next week. We have already completed some designs for the database, however, we need to revisit the schemas again and most importantly fill the database with dummy data. Once the data is inserted then we are going to connect the software with the database. This will allow us to make sure that the software is going to store the relevant data in the database.
* We have to revisit our **UML diagrams again.** This is due to the fact that we have not properly completed the diagrams as some of the requirements are still not very clear. This is one of the issues we are planning to raise when we have our next meeting with our external supervisors.
* **Implementing the new project pages** such as the user info and view pages are the ones which we are trying to complete before our next meeting with our external supervisors. In the “user info” page we are going to allow the managers to include their information such as their role in the company and their names/their department. The “view” page is going to display the graphs and the managers can choose different graphs to represent the data.

**30th January 2017-**

We have had a brief meeting with our internal supervisor. This is to prepare ourselves before our meeting with the external supervisors. Unfortunately we have not been able to do the meeting with our external supervisors due to the fact that one of our supervisor has been unavailable for the meeting. However, we have discussed about what we would like to do before the next meeting. These are some of the main topics we discussed during our meeting with our internal supervisor-

1. **Improving our trello board-** This is one of the part of our project where we have showed a lack of improvement. That is the reason why we have chosen this point to start our discussion with our supervisor. Currently, we have done a lot of tasks that involved coding, for example- our login and dashboard page along with claim and approval page. However, we have failed to document all the steps that we took to accomplish these tasks. This is why during the meeting we have come up with the plan that we would change the job roles of each team member.
2. **Change of the job roles-** As mentioned above, we have decided to change the job role of each member of our team. The new job roles for each team member are listed below-
   1. **Anthony-** Anthony will be responsible for making the prototypes. He will also be responsible for the back-end of the system. Checking whether the system is connected with the database or not is another part which he will be responsible for along with Niall and Lukas.
   2. **Niall-** Niall will be responsible for making an API that will allow Anthony to connect the system with the database. Niall will also make sure that the database has all the appropriate schema and tables.
   3. **Lukas-** Lukas will be dealing with the front end of the system. He will mainly work with Anthony to improve the CSS of the system. His main task will be to design the pages (such as- claim page or report page) and implement it through FXML.
   4. **James-** James’ main task will be to prepare presentation for our external and internal meetings. This task has to be done every week and he will be making sure that he is updating the diagrams based on the group’s performance.
   5. **Jaber-** Jaber will mainly take responsibility for the documentation of the project. These documentations include- meeting minutes, project planning or even contacting with the internal and external supervisors. He will also help out with the GUI of the system along with Lukas and Anthony.
3. **Changing the design-** As mentioned last week, we have changed some of the design based on the project details. The first page that we have changed is the “Approval Page.” We have now decided to propose the idea that the “claim software” can be integrated with our system, so that we can see who has claimed and also how much they are claiming each month. This will reduce the effort of extracting data from excel all the time. This also means that the system will be working more efficiently as it can directly access the data from the database instead of converting them from the excel sheet to the database. We have also planned to include a separate option as an alternative path (if Atos don’t want their claim system to integrate with our system through API.) This option will allow them to include an excel file and the data will be extracted based on that file.
4. **Database setting-** We have currently set our database that contains the tables for the data which will be provided by Atos. This database is quite important as it will hold all the data that will be presented through the dashboard. So, that is the reason why we have made our database using our own server side in order to test the prototypes that we have built throughout our last semester. Currently, Niall and Anthony are working on this and Niall will be responsible for making an API that will Allow Anthony to integrate the database with our system.
5. **Scheduling different time for the meeting-** Due to the change of our new semester’s timetable, we have to change the normal scheduling of our meeting with the external supervisors. This is one of the most important agendas for our meeting with both our external and internal supervisors.

**Our Goal for Next Week**

* Our first promise will be to complete the “Report” and “Claim” pages. Lukas will be dealing with the CSS side of these pages and Anthony will add these pages to the current system.
* We will also make sure that the database is properly working and contains relevant data that meets Atos’ requirements. We have already made the data schema, however, our external supervisors have promised that they will provide us a relevant data schema for the database. So, until then we will be working with our own data schema and find out how the database will be integrated with the system.

**03rd February 2017-**

**1.  Adding Use-Case Scenario**

The use case scenario is one of the most important tasks that we have missed out last semester. Although, we did the scenario, we did not properly completed it. Our internal supervisor has suggested us to revisit the user case scenario in order to see what are the requirements we are still missing. There are three kinds of users that we are mainly focusing on- the higher manager, the team leader/manager and finally the user/ the team members. There are few restrictions on the kinds of data every user can view. For example- each member can see how much they spent, however, they can’t see the money other members have spent unlike the manager. The manager/team leader will have the opportunity to view everyone’s expense and see who spent the most or least in the team. This is one of the reasons why we have to elaborate our user case in order to be clear about what each user should be able to do in the system.

**2. Adding Standard Statistics to our Project**

Adding standard statistics such as mean, mode and median can improve the way how the users can view the data. This will help the managers to see who is going over the budget and who is spending below the budget. We have all agreed today in our meeting with our internal supervisor that we plan to include the information. This will significantly help the company to reduce their expenses as the managers can visually see who is more responsible for spending a lot of their money.

**3. Understanding the Schema**

Although we have made the initial version of our database, we are still not 100% sure about the kinds of data they need to store for the system. The internal supervisor and the team have agreed in our meeting that we need to ask more information regarding the schema. This is one of the reasons why our supervisor told us to make the user-case more comprehensive in order to help us and also our external supervisor to understand their needs.

**Our Goal for Next Week**

**Making user stories for our clients**

**Adding Different Kinds of Graphs/Charts**

Although we have added bar charts and pie charts, our internal supervisor has suggested us to include one or two more graphs such as historical graph or line charts. This is to give the higher managers more options that can also help them view the data more effectively. Our internal supervisor has suggested us to ask ATOS the kinds of graphs they would prefer for this system. Although we are going to use the above mentioned graphs but we are still trying to find out what would work for them the most.

**Re-evaluating the Schema**

The schema that we are currently using is based on our assumption. Although this works nicely with the software, however, we are not still sure whether we are missing some of the schema or not. This can be very hard especially because there are so many aspects to the dashboard system (i.e.- the category of expenses.) Our internal supervisor has suggested us to ask our external supervisors some questions regarding this. This is to mainly make sure that we are on the right way to progress. We are currently waiting for our supervisors to send us the data schema that we can use for the database.

**07th February 2017**

**1.  Discussed the User Stories and Specifications**

We have discussed the user stories and the specifications that we have made. Dave and Matt both of our external supervisors have agreed to the point that we are on the right track. However, Matt has suggested that there should be different sorts of permission granted for different users. For example- the manager should be able to see all the total costs that they have allocated for the teams. They should also be able to see how much each team has spent and whether they are over the budget or not. This will help them to identify which team needs more budget than the others. Dave has also pointed out that different teams should have different budget. This is mainly because factors like the location of the team, the main project of the team and each member’s travel varies. For example- employees who are working in the UK may have different budget than the employees who work outside the UK. This is why the budget range can be varied in the system. We have also talked about the claim and the approval page. We have had some difficulty understanding whether they actually need these or not.  This is mainly because the company already has a claim system that allows the employees to claim. Dave has confirmed that we do not have to implement the claim and approve page anymore. He has also mentioned that we cannot integrate with their software because of the security reason. So, now we know that we do not have to make any claim page and also the data will be extracted from either Excel or PDF report.

**2.  Discussed about the data (Excel)**

Dave has sent us the data to analyse. The excel file contains different data schema although not all the data schema. Dave has suggested us to figure out a way to extract the excel file that he has provided and he promised us to send a larger version of excel file that may have more schemas than the one he has provided us. We have started to analyse the excel file and so far we have already encountered few issues. They are-

* **No indication of where they have spent the money.** For example- what hotel the employee has stayed in during his/her trip? This can affect the finance manager or the negotiator of the company when they analyse the data. For example- the employees of a specific team may stay in different hotels and one can claim more than others. So, the negotiator can face a very tricky situation when it comes to negotiating with their partners (hotel partners for example.)
* **Different types of data in “Name” column is present at the moment.** The “Name” column contains data about when they took their trip (from which date till which date.) It also contains where they took their trip and which ATOS site. However, this can cause a lot of issues when it comes to extracting the data. This is due to the fact that one data type contains just date (numbers/integers) whereas the other one contains strings.

**Currently we are trying to find as much as pattern as we can in order to see if the data contains any problem. We are going to raise these issues in our next meeting in order to help us extract the data more conveniently.**

**3.  The different kinds of users and their requirements**

As mentioned before, Matt has suggested to make different sets of permission level for different users. These are the hierarchy of the users in the company-

* **Higher Manager will be able to see/allow-** 
  + Different budgets for different teams
  + Total expenses for all the teams
  + Total expenses for each individual
  + Charts for all the above mentioned points.
* **Manager will be able to see/allow-**
  + Budgets for under his/her teams
  + Making changes to the teams under him/her.
  + Checking individual details for each team that is being managed by him/her
  + Charts for all the above mentioned points.

Each claim is treated as 1 claim and it can consists of all the expenses that they spend during that one claim. For example- the hotel, meals, train trip back taken for that specific travel. Each should have a reference number. Dave has also mentioned that a person can work on multiple projects so the report should show each individual's expenses for different projects.

**Our Goals**

**-  Improve the system in order to extract the data from Excel.** This task will be done by Anthony. However, we all are going to figure out which data schema are most relevant to the system based on the excel file that we have received. This will be important for both our database and also for the system.

**-  Make the Team Leader page** is another task that Lukas and Jaber are going to attempt. Although, this is not the main priority for now, however, we want to finish this page in order to check with our external supervisors whether this is how they are expecting the system or not.

**-  Try implementing the database API** is going to be done by Niall. This is becoming one of the most important task for us due to the fact that we have now received our data from ATOS. We are planning to finish the above mentioned tasks by next Monday before our meeting with ATOS.

**14/02/2017. Meeting With External, Internal and Whole Team**

1.  **Discussing what we have gathered from the Excel file**

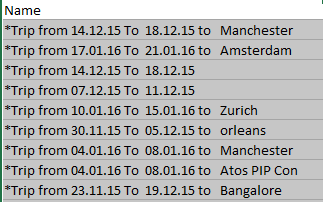
We have started our discussion with the file that they have given us last week. Our first point has been to discuss all the schema that we have chosen for the table in the summary page. These are the schema name we have chosen-

* Employee Ref Num (Personal ID)
* Date
* WBS elements
* GBP and Euro
* Document Number
* Cost Element
* Last Name, First Name

We have checked with Dave and Matt in order to see which ones would help them analysing the data. At first we thought that they only need to see GBP; however, Dave mentioned that as a manager he also manages other teams around the Europe. So, it is very important for him to also analyse other teams and their expenses which are normally shown in Euro. So, finding essential points like this have been the first agenda of our whole meeting.

**2.  Questions regarding the schema and the data**

Then we have discussed about some of the questions that we have made for them regarding the data that we have received from them. The first question that we have asked is about the name column.



The above image shows the **name** column. In that column there are few issues which include mainly the strings and the numbers. The first problem is the use of both string and numbers. Although we know that even the numbers can be considered as strings, however, some of the columns do not contain the name of the places. This makes it difficult to see how big or small the data size can be for each column. This is why we have asked them whether each data is taken using separate input or are they taken as a whole.

**3.  Evaluating the new file**

Dave has provided us another excel file which contains more data but with different schemas. This has made us think about the way we have included the file in our current system. Although the data contained in the file looks almost the same as the previous one, however, the schemas are quite different. There are more schemas than the one from last week. So, we have quickly gone through some of the columns that Dave and Matt think could be crucial for the system. After that we have also talked about how the file will be integrated with the system.

**Our Goals**

**1.  Re-evaluating both files to find out the differences between data schema**

After getting the new excel file from Dave we have realised that there are few things that we need to re-evaluate. For example- the “name” column that has been mentioned above is different from the new one. The new one contains all of the data separately instead of combining all of the four schema into one.

**2.  Updating everything based on the new file**

Relationship between the **new excel file and the old excel file-**

* Customer Number- Is not present in the first file
* Customer Type- Is not present in the first file
* **WBS Number**- WBS Number in the first file (col- B in the first file)
* Document Date- Need to check with them again. So, leave it for now
* WBS owner (both column- AT and AU)- Is not present in the first file
* Expense Date - this refers to the “Time Month col-y” column in the first file.
* Payment Date - this refers to the “Month col-x” column in the first file.
* Cost Center - Is not present in the first file
* Cost Center Description - Is not present in the first file
* WBS Billable (sometimes if the customer is paying for the employees)- Is not present in the first file
* **Location** - This can be found in the “Name” column in the first file.
* **Trip Start date** - Trip start date-(use the one in the “Name” column)
* **Trip End date** - Trip end date (use the one in the “Name” column)
* Number of receipt- Missing from the first file
* **Trip cost**-  Vbl. Value for **Euro** and Val/ObjCur for **pounds** in the first file.  Trip cost column in the second file but it does not contain anything for EUR for now.
* Receipt date- I am guessing it is the “doc date” col-A  from the first file but I need to check with them again.
* Receipt location- There is no receipt location in the first file
* **Expense type**- “Cost element name- col L from the first file.
* Employee with SAP Id- (Col- Z- Personal Ref No in the first file)
* Employee with DAS id - Is not present in the first file

These are the most essential entities that Dave has suggested for the system. Some of the schema can’t be found in the old file, so, for now we as a team have decided in the meeting that we will make them as null for the empty inputs.

**3.  Updating the summary page**

As mentioned above, we have figured out some of the key columns that need to be shown in the system. So, our main aim is to redesign the table that we have made for the summary and the upload page in the system. This is to make the system compatible with the new data that we have received. We are also going to improve the page by adding the line chart and the bar chart in order to compare the data.

**Questions for the next meeting**

* **Can a project manager have more than one project at a time?**
* **The hierarchy of the project.**
* **What does the claim number represents?**

**Meeting On 28/02/2017**

**1.  Showing our progress**

Today we have discussed about the real data that we have analysed through the system. Our supervisors have given us some feedback regarding the charts that we produced. First of all, Dave, one of our external supervisor has agreed with what we have produced so far. However, he has mentioned that it would great if bars in the bar chart can be clicked so that they can see the expenses individually and also compare it with the other team members. We have also shown the main page that we have improved (i.e.- improving the “notification” area of the main page.) Again, both of our external supervisors have agreed with the design and how the system is functioning.

**2. Questions regarding the files**

We have made some questions for our supervisors so that we can understand the data and the system better. This has been very crucial for the whole system as there are some data that are not valid. For example- some of the fields in the cost column contains negative values which can affect the whole chart and also does not seem realistic. So, our supervisors have agreed to check the data again and find out what those negative values actually represent.

Our second question has been to give us more details about what they want for the individual report. They have mentioned that they are mainly looking for individual expenses with different elements- such as- hotel, travel etc. They have mainly emphasised on the point that they need to compare each individual with their other team members. They have also wanted us to include weekly and quarterly expenses so that the managers can track the expenses in more details. We have also asked them about the hierarchy of the teams. So that we can give permission to a specific part of the system to the specific users.

**3.** **Our goals for next week**

Our final plan for the next week is to make sure that we have reviewed all the calculation methods and sql statements. This is to guarantee that our functionalities are reliable for analysing the cost of the claims and produces accurate charts. Our second plan is to make design for the team leader and individual pages.

**07/03/2017**

**Show our progress**

Dave mentioned some changes that he wanted to see last week. That includes checking the database and making sure that the calculations are correct. So, that is one of the improvements that we have done last week. Although, all of our calculations were correct we did not produce the correct chart for the data. That was one of the improvements that we made last week. The second change that we made in the system was the adding of “Remove”  button for the upload page. The upload page only catered uploading the files for analysing. However, it did not contain any deleting options for the user. So, that was the reason why we decided that the upload page should allow the users to choose which are the files they want to analyse and which are the files they want to delete from the system. Our final change to the system was to add the quarterly and weekly options which Dave and Matt wanted. The weekly option showed the expenses for individual/a team in a week and the quarterly showed the quarterly expense for the individuals and the team.

**Questions regarding the changes**

Although, we were very clear about the quarterly option, however, there were some confusions. We were not sure about whether we should take the end date of the claim as the week or the claim (when they claim the money) as the week. Dave, Matt and Natasa suggested us to use both the claim date and the trip end date to allow the users to see when they claimed the expense and also when they ended the trip. So, we have to add a new table showing all the claims through the claim ID and for each claim we have to show the elements and the costs for each element.

**Our goals**

* **Making plan for** 
  + **Installation Documentation**
  + **Back end Documentation**
  + **Front end Documentation**
  + **User Guide**
* **Checking with Peter about the database**
* **Installation techniques**

**17/03/2017**

Today we have discussed some of the changes that we made in our system. Now we have covered all the essential functionalities which our clients have required. So, right now we are mainly focusing on debugging and documentations. However, there are few small changes that we have made in the system to adapt to our clients’ need.

**Changes in the System**

We have implemented the feature that David has wanted to include in the system. He wanted to see the individual’s report by hovering over the bar chart when comparing all the employees/team members in a team (in the report section.) We have also changed the design of the main page and the report page. Dave and Matt both have found the design effective as they can view all the buttons and labels clearly.

**Questions About the System**

**Who can upload the files in the system?**

We have asked our external supervisors about the uploading of the file. We have figured out that if the team leader and the project manager both have the right to add/upload files in the system and also add team members then there is no point making two separate pages for team leader and project managers. Dave has confirmed that both the manager and the team leader can upload the files. However, the team leader can only view their team’s information. We have also found out that some of the data needs to be excluded when calculating the expenses. We have included some expenses that are counted as tax (according to Dave) and he has suggested us to calculate the expense without including the taxes.

**Goals for our Next Week**

Dave and Matt are visiting us next week and we have promised them that we will show them our first prototype. This is so that they can see our progress and also suggest us any improvements. Currently, we have finished all the sections they wanted us to add in the system apart from the Team Leader/Project Manager page (which we need to confirm with them as they were not sure either.) So, for our next week we are going to start debugging and making the system as intuitive and reliable as possible for our first version of the system.

**20/03/2017**

Today Dave and Matt visited us to evaluate the system and give us some effective feedback. So, first of all we started our discussion by illustrating the functionalities of our system through the files they sent us. We used the two files that Dave provided us and then analysed each of the pages in the system. However, Dave and Matt were mainly interested in viewing the individual’s expenses. They wanted to see the teams which spend the most and then who spend the most in that team, in other words, they were interested on the drilling down of the information.

**Changes**

Dave and Matt were quite happy with the progress that we made and also suggested us the following improvements that can be made to make the system more efficient for them-

1. **Using H1/H2 for budgets-** We divided each budget (yearly) into two budgets, one covering for the first half of the year and the second one covering the second part of the year. However, in the main page, we labeled as A and B, A representing from January to June and B representing July to December. So, Dave suggested us to label them as H1 and H2 which represents half year part 1 and half year part 2 for the budget.
2. **Don’t need to make individual page-** We were planning to make pages for individuals so that everyone in that team can see their own expenses. However, Dave and Matt suggested that this system is mainly intended for the managers. So, the individuals in a team would not have any access to see these data anyway.
3. **Using the correct trip cost-** We were using the wrong columns to calculate the total expenses. This was giving us the wrong amount for each individuals and as a result this was affecting the whole chart. We analysed the whole file(the second file) with Dave and Matt and we found out that the column that we used was calculating all the total for a single claim instead of calculating each element.
4. **Specify the first ten individuals-** Dave mentioned that there are some teams which consist of more than 100 employees sometimes. So, we came up with the plan that the system would show only the 10 employees who spent the most in that team.

**Goals for our next meeting**

Dave and Matt finally agreed that we covered all the functionalities that they wanted in the system. So, our plan for the next couple of weeks is to make the system as robust and effective as possible. We are going to debug the system. We are also planning to make documentation for the database system so that we can share it with Atos’ technical team. This is to help them set up a similar database that they can use when installing the system.

**04/04/2017**

**Our Progress**

We have currently covered all of our clients’ requirements apart from converting the report to pdf. We have covered all the GUI improvements that our clients have suggested us in our last meeting.

**Issue with the system**

Today we talked about our progress and the issues that we are facing in terms of uploading the file. Dave gave us a file that contains 68,000+ data, however, our system is only accepting 10,000 rows of data instead. Although we have tried several methods (such as using a computer with better RAM and CPU, changing the database from cpanel to school database) to prevent these issues. However, so far it looks like that there is a problem with the API that we are using.

**How are we planning to solve this issue?**

Dave and Matt agreed that it is a good idea to contact their technical team to inform them about the system. So, we planned that we would have a meeting with their technical team. We are mainly going to talk to them about the installation process and ask them if there is any solution to the issue that we are currently facing. We have already made a database documentation that we sent to their technical team. This has been reviewed by the technical team and Matt has confirmed that they are going to review it again with us during the next meeting.

**Goals for the next week**

As mentioned before, we have covered all the essential parts in the system. This is the reason why we are concentrating more on debugging and improving the GUI of the system. However, our first priority for now is to make sure that the conversion to PDF file is working correctly. We have also completed the “forgot password” section which allows the user to retrieve their account when they forget their password. Even though we have completed this section, we still need to integrate this with the main system.

**Goals for the final reports**

**Jaber- Test documentation, database documentation**

**Niall and James- Risk analysis**

**Lukas- User Guide, FXML files**

**Anthony- Backend documentation**

**11/04/2017**

**Our Main Discussion**

Today we continued with our final progress. We have finally completed all the parts including the PDF report. We talked about the limitations of the system which includes separating the files into small parts. Currently we are using an API that processes only 10,000 rows of data. Unfortunately due to the time constraint, we haven’t been able to analyse this problem. However, Atos’ technical team have agreed to have a meeting with us. This is when we are going to explain to them the key concept behind our system and what they can do to improve it even further.

**Our Plan for the next weeks**

* **Documentation for the technical team-** We have already provided them with database documentation which explains the relationships between tables in the database. We are currently working on user guide and FXML documentation. This is to help the technical team to understand the system better and change the functions/features whenever they want.
* **Improve GUI of the system**

**20/04/2017**

Today we have talked to the technical team regarding the software. Our focus has been to explain the features and functionalities to them. We have explained what each of the feature/functionality does. This is to help them understand the software and identify the documentations that they need from us to maintain the system. These are the documentations we have been told to provide by the technical team-

**-       Database Documentation**

**-       User Guide**

**-       Installation Guide**

**-       Test Documentation**

We have already provided them the database documentation, so, we have promised to provide them the user guide and the installation guide on 5th May 2017. We have already started the user guide and showed them our template. This is to make sure that they are familiar with our templates/documentations.