

# PROCESS REPORT

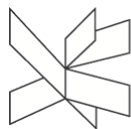
## Vipassanā – Insight Awareness (VIA)

### System and Website

#### Supervisors

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Michael Viuff



VIA University  
College



#### Students

Andrei Cioanca – 266105

Stefan Harabagiu – 266116

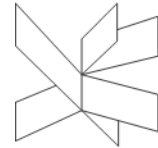
Nikita Roshkov – 266900

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**ICT Engineering** 1<sup>st</sup> Semester

13/12/2017



## Students



Andrei Cioanca – 266105

I hereby declare that my project group and I prepared this project report and that all sources of information have been duly acknowledged.



Stefan Harabagiu – 266116

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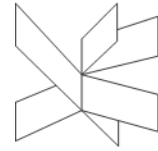
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Dawei Li – 269053

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## Acknowledgements

The team wishes to formally acknowledge VIA University College's active implication in the evolution and completion of this project work. All documents contained or referred to from this project are based on VIA University College's templates and designs. All information present in this document, while original in itself, could not have been made possible without VIA's designs and templates.

## Version history

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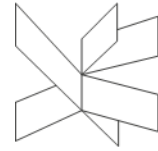
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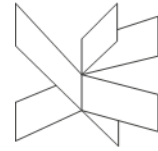
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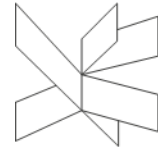
## I. Introduction

Our group has overall managed to take the project offered by Vipassanā – Insight Awareness (VIA) from its infant stages of diagrams and graphical sketches to a fully functional system and website built specifically to accommodate the company's needs. We were able to do this by engaging in meaningful group communication, numerous group meetings, scarce but crucial supervisor meetings and having a solid group contract to abide by.

Naturally as in any group project we overcame difficulties such as language barriers, misunderstandings between different group members and conflicting ideas. This, however, did not hinder our progress and managed to fully complete the project.

This report will delve deep into the project and describe the process of our group work, hopefully giving the reader insight and a better understanding of how we managed to complete this project.

We can not begin to talk about the actual report without first introducing the group members.



## II. Group Description

The group is made up of four international students from China, Latvia and Romania, each with a different cultural background and approach to group work.

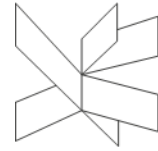
Andrei Cioanca is 19 years old and comes from Romania. He has extensive experience in group environments having led quite a few of them in the endeavours of project work. Most of these groups have been comprised of high school colleagues and the work that they have accomplished extends to business ideas, video-game demos and even short films.

Nikita Roškova is 19 years old and comes from Latvia. He has broad theoretical knowledge in different programming languages and experience of managing team in small projects in different areas. Moreover, the background was supplemented with being engaged in real media company work process, that helped to conceptualize a value of an algorithm and product architecture in relation to users convenience.

Stefan Harabagiu is 19 years old and comes from Romania. He has past group work experience acquired through enrolling in a volunteering organization funded by the Rotary club. There he participated in organizing and hosting a number of charitable events by working together with his other colleagues in order to develop his skills in what concerns socializing with group members, organizing ideas and successfully hosting a public event.

Dawei Li is 19 years old and comes from China.

*[Dawei has not provided any further information to be added to this section.]*



### III. Project Initiation

We did not have the opportunity to choose our own topic but we were provided with it instead by the stakeholder VIA. After the topic was made public the group was formed mainly based on the first impressions most of the classroom got of each other. One of the other factors that contributed to the group forming was Andrei's and Stefan's past acquaintance and same nationality. Dawei contacted Nikita about forming a group together and then both groups merged in order to have one group with four people.

### IV. Project Description

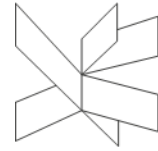
The group is overall satisfied with the outcome of the project description. It was the first piece of documentation the team has ever written together regarding this project work. With that in mind, there are a few things we agree on having done differently. Writing a project description for the first time is not an easy task especially for a group of people that just met each other.

Because of this, the project description has gone through a few iterations. The first one was the actual document that we have presented at the mid-semester evaluation. Its contents were mainly good and they served as basis for future versions, although, some sections of the document were lacking tremendously.

First of all, the purpose contained a sentence which offered no constructive value and the front matter was severely lacking. We were missing a title page, cover page, table of contents and the overall design of the document such as suitable font size, timetables, highlighting and colour were missing completely. Secondly, our delimitations were completely wrong. We took the video provided by VIA as a guide for the whole project description, but due to a misunderstanding between us we listed a number of issues that the group will encounter during implementation, instead of listing what the group will not tackle. Furthermore, we did not correctly state references so we were suggested to use online resources from the library regarding Harvard styled references. Another section of the project description that had to be rewritten was problem statement. In the first iteration of project description there were no sub-questions to the main question.

However, the project description contained sections that did not require any improvements as they were already correctly written. Background description was well-

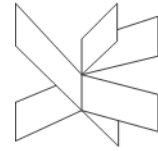
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structured, the time schedule was well thought and the addition of a external testing period also greatly contributed to conveying the fact that we are fully aware of all the time consuming aspects of the project development. Moreover, both the risk assessment and the choice of models and methods sections were well written and did not need any further modifications.

After the mid-semester evaluation, we modified the project description according to supervisor's feedback given during the presentation of the document. Therefore, we decided to change the most of the sections that proved to be problematic in the first iteration. As a result, the definition of purpose is now restructured and contains only one sentence, the problem statement has six more specific questions that better encompass what difficulties might arise during the development of the system and the front matter has been significantly improved in order to contain better indentation, suitable font size, text highlighting and both title page and table of contents. Furthermore, the references are now structured according to the Harvard specific style and we have added the group contract drafted at the beginning of the project's initiation as an appendix to the project description.





## V. Project Execution

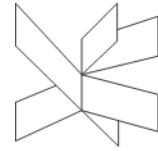
In the beginning we focused on the website development and created the first iteration of it which contained only HTML and CSS code. Firstly, we came up with the draft for the design of the website and afterwards we decided who will implement certain parts of the website. After the first version of the website was done, we started working on the project description. Unlike the website development process, for the project description we did not divide the work between ourselves and instead decided to appoint several group meetings during which we worked together on the document.

After the mid-term exams we began working on the second iteration of the website, which contained Bootstrap code. For this part we kept the original division of workload from the first iteration, however, we have also scheduled a couple of group meetings in order to decide upon a few design changes.

After completing the second iteration of website, we added improvements into the project description according to the feedback received from the supervisors during the mid-semester evaluation. Afterwards, we started working on the Use Case diagram and descriptions followed by the development of the activity diagrams. In order to create these diagrams, we scheduled a meeting during which we assigned tasks to each member and at the end of it the diagrams were complete. Next, we had a group meeting in order to create the UML class diagram for the system and started creating the GUI for it. After the meeting we split the work between us and we expected that at the first supervisor meeting with Michael we will have implemented most of the classes and GUI. The next group meeting was scheduled immediately after meeting with Michael and we continued developing the system while taking into consideration his advice. After several more group meetings we finished implementing the system and added functionality to the GUI. The project report and the process report were written in the same manner as the project description with the exception that Dawei was not present during those meetings.

The group is satisfied with the project execution as we have always either divided work between members or scheduled meetings during which we worked together to accomplish our tasks.

Moreover, the project results meet our expectations as the website is fully responsive, stable, well-structured and the system that we developed meets both the employer's and our requirements. There is, however, room for improvements regarding the



application, such as more user input validation and adding a controller class for both the system and the GUI.

Our group used the waterfall approach in order to develop the project. Our opinion on the waterfall approach is that doing documentation first and implementation last is a bit confusing, especially for first-timers, because we did not have a good idea about how the system will be implemented. As a result, we were required to go back to change the documentation regarding the implementation.

## VI. Personal Reflections

**Note:** The personal reflections expressed below have been composed and belong entirely to the respective group member whose name is written above each first paragraph. No attempts have been made to change the word choice, grammar, language or opinion of the authors. This decision has been taken by the group as a whole in order to keep our own opinions genuine and undiluted.

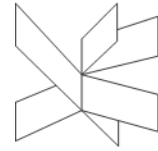
### Andrei Cioanca

The content of the group contract in an ideal world binds every member to an agreement. It contains essential information on how many times a week we should meet, how will we tackle certain development problems, how will we communicate and how we will handle miscellaneous issues.

Overall the group has abided by the contract faithfully, honoring the agreement that we would meet at least once a week to discuss and work on the project. The other elements of the contract did not influence the work that much and were rather non-existent as far as all members in the group were concerned.

Having a keen sense of proficient work and leadership I felt responsible from the very start to make sure the group has the clear focus of completing the project. I felt responsible for every part of the project even when the part in question was not mine to work on, I still felt it needed my attention, input and feedback. When we had meetings and the other members did not offer input on any issues or did not take initiative on certain tasks, I did. For example, the first time we met to conduct our project description, none of the group members had any idea on how to tackle the subject, when I saw this I decided to step in and take initiative. By doing this I offered them a

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new perspective on the problem and an idea to grasp onto. From there, they each came up with their own ideas and were much more active in providing input.

The group contract, from my point of view, had absolutely zero impact on the many successes and failures of our group cooperation. No member of the group, including myself, felt obliged to respect the group contract seeing as there are absolutely zero repercussions to those that do not abide by it. The only thing keeping us together were our morals and the fact that we all wanted to see the project taken to completion.

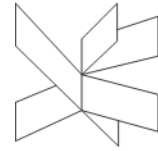
For the next group contract there would need to be some kind of repercussion for not respecting it, if that is not possible then the removal of the group contract would affect absolutely no one in terms of project development, it would only mean one less piece of documentation to write.

On the matter of working together I have to say that while the three of us, Stefan, Nikita and myself saw fit to have an equal amount of effort poured into the project through taking initiative and actually working on the project, the same cannot be said about our fourth member, Dawei, whom I feel hadn't pulled his own weight in the context of this project from the start. Apart from this fact I feel that both Nikita and Stefan made great strides in trying to be as productive as possible.

Motivation in the group was kept healthy throughout the work period. It would falter at certain times when we thought the amount of work was overwhelming but after meeting, talking and actually delving in the work we regained our motivation to bring the project to a happy ending.

I firmly believe that I did not benefit from the multicultural group at all. I've benefited from taking a project from scratch to completion in a matter of months with four other people, two of whom were complete strangers at first and the fact that we all come from different cultural backgrounds had nothing to do with it.

I think the biggest obstacle had to be the language barrier, especially between Dawei and the rest of the group, who due to his cultural background had difficulties in both understanding English and speaking it.



Next time I'll be sure to be more careful when building a project team. Over the course of this project I learned that planning is two thirds of the job and the execution is the easiest one of them all.

Problem based learning in general has the advantage of already putting what the students learn into execution and if provided with a good enough base to start on it may even be used in a real-life situation. Couple this with group work and you can easily simulate and prepare the students for the real challenges ahead in their careers.

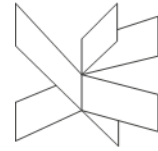
The disadvantages of this might be the fact that not many students have the ability to communicate and work efficiently while in groups. We are all different and we tend to function and work in different ways as human beings which brings up the possibility of our personalities being so different that we cannot work together.

Problem formulation is a double-edged sword. Seeing as we applied the waterfall approach to this project, naturally we have decided on a problem statement at the start of the project and while this is very good for direction and focus it is a terrible approach if you deem the statement "wrong" at any point of the project's development.

### **Stefan Harabagiu**

My overall experience with the group as well as with project organized studies and problem-based learning has been satisfactory, as I consider that I have gained valuable experience and have acquired great insight in what concerns both working with a multi-cultural team of students to achieve a certain end result and developing and programming a system in Java.

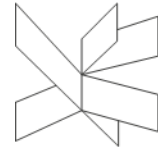
First of all, I consider that even though writing the necessary documentation for the project has been the least enjoyable part for all members, working and researching in order to construct a suitable collection of documents for our assignment allowed me to see another perspective of what means to start a project with a certain team of people in order to satisfy a customer that requires our services. Carrying the project from its early stages of reading an interview and figuring out what we need to do in order to satisfy the customer all the way to developing a fully functional system that meets all the requirements has proven to be equally difficult and challenging, however I do believe that meaningful experience has been gained from this. This is where the usefulness of problem-based learning shines the most as our group has been presented with nothing but an interview to help us identify what we need to develop and submit



for SEP1. A great deal of research has gone into writing the documentation and creating the system as well, as we have encountered numerous issues along the way. A good example would be looking up for the correct way of structuring a project description and project report, creating a suitable front and back matter for such documents and writing references in those documents in an acceptable style.

Secondly, I believe that I have gained important skills in what concerns developing and programming a single-user system that is required to meet the expectations of a customer and satisfy them as well. Me and my group used what we were taught in class and more in order to achieve the result we hoped for. During implementation of both the system and the website I have learned how to apply everything me and my classmates were presented during courses in an environment which simulated a real workplace, experience which offered me insight on how I can apply what I learn in reality. Moreover, besides applying what I was taught I have learned several new things as well as I was required to research in order to solve certain issues or to make the system or website look and act however our group planned.

Finally, I would like to state that even though working in a group project has gained me both experience and knowledge, I do recognize that group work has proved to be more difficult than I imagined. Even though I have experience with team-play and working to achieve a goal with a group of people, my past experience in it did not include certain aspects that proved to be problematic. The language barrier proved to be an important issue, in my opinion, regarding one of the four members. I believe the inability to properly express your thoughts and ideas in English lead to receiving no real input from the member in question. When working on documentation our group usually met in order to work together and brainstorm ideas on how and what to write, however a very low level of English in a member can mean that there will be no suggestions or involvement from that person. Furthermore, the very large differences in past experience in what concerns both programming and group work did not go unnoticed during our group's collaboration. For me personally understanding and learning how to use what was taught during classes was not a hard task, however for other people it might. It wasn't only once when we had to work on another member's task or even re-do it all together, sometimes, because what the respective member presented us with was completely unusable. What I am referring to are not mistakes that one might learn from if pointed out, I am describing a work done by a person that does not seem to be able to use and understand even the basics of programming in Java or developing a responsive website.



### **Nikita Roshkov**

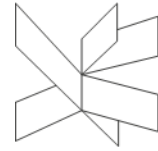
The content of group contract fully displays the conditions of the work our group tended to follow. The group contract includes clauses about mandatory weekly meetings, equally divided amount of work, each member's part discussions, project assembling overall on a weekly basis and respect towards deadlines.

Group work implies splitted responsibilities, it means that all group members are dependent on each other, thus all tasks have to be done and the schedule must be respected regardless of amount and complexity of the tasks. I felt responsible for providing group with completed tasks that I have taken and for informing the group about the current status and problems appeared if there were any. As an example, I have informed my group about some issues arisen while working on GUI part and took one more day for solving them (deadlines were still respected).

Group contract had an impact on constancy of meetings. We followed the agreements and had meetings at least once a week with the exception of holiday time, unforeseen incidents etc. We managed to adjust amount of meetings depending on the amount of work and the amount of problems arisen, so all deadlines were respected. However, our group did not manage to stick to all clauses described in group contract. According to a group contract we agreed to each participate in an equal amount during the project's development, but we did not comply with this clause due to several reasons. Firstly, it is more beneficial to split tasks on logical areas, therefore frequently some group members had bigger amount of work and more time-consuming tasks than the others. Secondly, due to different amount of knowledge, we could not split the tasks equally.

As for adjustments for the next group contract, I would suggest to add a clause about mandatory studying of the other group members parts of the project during every meeting. This means, that each group member would have to see into and understand project parts of other group members on the same level as his/hers part. Our group did not focus on this during project execution process, so we ought to go over everything again after the project is completed.

I am satisfied with the group work overall. Nevertheless, from my perspective not all of the group members contributed satisfactory. Dawei had less responsibilities than other group members because of inability to do more complicated parts of the project. All



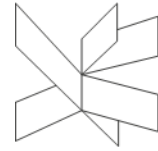
the rest group members helped Dawei to complete some of his tasks as it was stated in group contract, however, sometimes we were unable to improve existing material and had to start doing his part from scratch, so at some point it was simpler to assign Dawei simplest tasks in order not to stop the project execution process. As for all the rest members, we delivered to a maximum to the group, using not only expertise but also extra knowledge that was gained right during the execution process. As it was mentioned, due to unequally divided tasks the amount of work differed, however we put every effort to make it beneficial to our group.

Motivation of the group in general was good. However, it was changeable depending on the tasks we were engaged in. From my perspective level of motivation depended on how interested were we in specific task that we had. This means, we were doing HTML, CSS, Bootstrap as well as Java coding more willingly than documentation part.

I enjoyed multicultural group work. It was a great chance to strengthen my language. Moreover, different culture of people may have specific influence on them as well, that implies different attitude to things, solutions of the problems and another point of view, that surely was beneficial to me. Multicultural group work did not seem difficult. Perhaps, sometimes misunderstandings were cropping up during discussions because of the language barrier.

Talking about project organized studies, in my perspective, the advantage of problem-based learning is that students are more willing to find solutions and make a real product, because in this case students understand specifically how can they apply their knowledge in the future. Group work helps to make tasks less complicated and time-consuming because of dividing the responsibilities, moreover, group work ensures more productive way to solve problems because of more points of view and wider knowledge that possesses group comparing to a single student. However, as disadvantage may mention that all group members should have at least an average level of knowledge to be an appropriate group member and have an equal part of work as all the rest group members.

Documentation part was required to clarify the structure of project execution. Talking about problem formulation, it helps to define a task in general and create a step-by-step plan of actions on how to solve current task. However, it defines task in general, but not specifically. As for project description, it specifies more details about the project implementation. It includes basic details such as background description, definition of the purpose and problem statement, therewith supplemented with more detailed parts



such as delimitations, models and methods and time schedule. Project description is significant part of the project, because it is necessary to assess further project, set specific goal and deadlines.

#### **Dawei Li**

Through this group of work, I think I have a better understanding of the code and experience. Instead of learning in class, this time applying the learned knowledge to reality. And in the actual work, there are many things that are not in the books, so I also learned a lot. The project should also appreciate the need to do is keep learning, summarize and make practice.

At this Group Work, I worked on some easy part of our project. I do not think I do the good job. Because I can not follow the schedule at sometimes. I always learning and improve my study. Other Group members always help me. I thank them very much. I hope I can do more on next project.

In the previous study, we had expectations and concerns. Expect to be able to run the group activities can really help the team members, but also worried that can not achieve the desired results. However, I believe that as long as we are serious about preparing, thinking, and paying, we can reap the benefits.

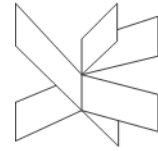
When the project began, I have been gradually expand their learning around this problem. Efforts to learn the practice plan with Team together with teachers from the most basic, step by step and gradually learn to master this process capability. Although a modicum of success, but there are still many shortcomings and omissions, in the future of the learning process, but also to give myself a follow-up tasks and requirements.

Not all panel members are satisfied with the group activity. Since I can not do more complicated projects, I have less responsibility than other team members. All other team members helped me to accomplish some of the tasks in the team contract.

From start to finish, the project has given me the harvest, including 2 points.

The first is the overall improvement of innovative thinking, in their own existing level of knowledge for the discovery of unfamiliar knowledge, to explore the realization. Not only to enhance the difficulty of learning, but also to cultivate innovative awareness. In





fact, throughout the study, the team accomplishment cooperation, exchanges and cooperation with the advance and retreat of the ability to work constantly made me realize the importance of teamwork. And precisely the improvement of the quality of our cooperation.

Through this project, not only learned a lot in terms of study and practice, but also in dealing with others makes me more mature. Innovative project design process also greatly tempered my patience and careful, I have to make up for this deficiency. At the same time, it also makes me feel the pleasure of innovative practice, improve the ability to enhance the cooperation extended thinking consciousness, in practice also has greatly improved.

## **VII. Supervision**

The cooperation between our team and our supervisors was enough throughout the project work period to bring a sense of satisfaction to us. Whenever we needed advice, they answered. Whenever we needed guidance, they provided. For someone unexperience in actively seeking help from those that are there to provide it I imagine are very dissapointed in the supervision. For us though, it was perfect.

We used our supervisor on both implementation and documentation, seeing as this was the first time we've ever done anything like this. We've asked for advice on how to implement certain aspects of the system such as a UID generator but also on certain aspects of the documentation where we feel we might be lacking.

We would benefit greatly from having the same kind of supervision next time as well as any time we would have another group based project work.

## **VIII. Conclusions**

In conclusion, we would like to thank VIA's staff for giving us this opportunity to grow and to understand every single part of a whole project, from the humble beginning of planning and analysis to the seemingly terrifying actual execution of the project.