

Management project in organisation
Changing hydraulic arms on garage gate (CHAGG)

Gyorgy Vegyinas 1817909

Lecturer: Paul Jenkins

Executive summary

This piece of work will analyse a project implementation of changing the hydraulic arms on the iron gate of an estate. It will follow through the steps of implementation of the plan. These steps are project tools, project and plan through will have insight to the plan, scope, deliverables, time, budget, quality, schedule, resourcing and communication of the project. Finally, will analyse the ability of writer to manage a project.

Table of content

Introduction	4
1.0 Project tools	4
1.1. ProjectLibre	5
1.2. Trello	6
1.3. Summary of tools	6
2.0 Project and plan	7
2.1. Plan.....	7
2.2. Scope.....	8
2.3. Deliverables.....	9
2.4. Time.....	9
2.5. Budget.....	10
2.6. Quality.....	12
2.7. Schedule.....	12
2.8. Resourcing.....	14
2.9. Communication.....	15
3.0 Critical evaluation.....	15
References.....	17
Appendix.....	19

Introduction

The aim of this report is to examine a project management plan for a chosen organisation through different kind of employing academic models, theories, tools and methods. This assignment will show how to prepare an implementation plan and specify each relevant step what must follow to be able to properly finish the plan, however, how will be communicate the plan with stakeholders and colleagues. Finally, will be evaluated the authors ability to manage a project plan by identifying strength and weaknesses to implement the project and will be create a self-development plan to improve the author performance in managing project. The chosen organisation is BRAM (Barrat Residential Asset Management) plc. because the organisation was the writer previous employer. The history of Barrat dates to 1950's when Sir Lawrie Barrat couldn't afford to buy his dream house, so he decides to build it. The company been listed on the London Stock Exchange in 1968. The company became the second largest housebuilder in 1974. In 1979 Barrat became Britain's number one housebuilder. More than 800 homes were sold in four months in 1981. Celebrating milestone, the 200.000th sealed home in 1995. First zero-carbon house built in 2008. Five-star rating in the annual Home Builders Federation 2019. It is great to see the evolution of the company through home buildings and the immense background experience what has lift the company to the first place in Britain. The case study will be changing the hydraulic arms and accessories for a two wings garage gate about theft and the project name is (CHAGG). The first part of the assignment will discuss the project tools such as ProjectLibre, Trello and the background of them. The second part of the assignment will introduce the project, team members and contractors moreover will continue with the plan which will include the project breakdown, timing estimates, cost and resource breakdown structure, diagrams, charts. The third part will touch the writer critically analyse the ability to manage a project. The final part of assignment will contain the conclusion and recommendations moreover references. According to Patanakul et al. (2010) the use of project management tools and technics is about the absence of information and because of approval preferably than any known advantages.

1.0 Project tools

To be able to implement a project there are existing several tools such as programs, applications and online project tools. Table criteria allows the writer to access several project managements tools. To be able to understand the chosen tool what can fit the requirements of the project in the authors company is good to comprehend its culture and accessibility. It is good to be aware of the fact that the writer company policy gives freedom for managers to interact or even manage different kind of projects up to a certain amount but may not exceed the amount of the yearly budget of the estate. Due of the project nature (what is not far-reaching) the writer decided to use appropriate tools and technics. The first tool what will be discussed is the ProjectLibre project

management software. The management has decided to use this tool because is Microsoft compatible, can show the earned value costing, Gantt chart, Pert graph is simplified way to calculate an expected estimate from the optimistic most likely and pessimistic estimates and an enhancement to the critical path method (CPM), network diagram, resource breakdown structure (RBS) chart organizes resources into resource group, work breakdown structure (WBS) chart used to decompose projects down into manageable chunks, cost breakdown structure (CBS) represent the place where cost from tasks or resources can be accumulated, actual cost of work performed (ACWP) is the aggregation of all costs necessary to complete the work for the project, budgeted cost of work performed (BCWP) accumulation of budgeted cost performed in completing the project, budgeted cost of work scheduled (BCWS) aggregation of budgeted cost predicted for work scheduled to implement the project, task usage report and histogram. Taking in consideration that the project it has serious antecedent due that two moto bikes has been stolen, these stages are necessary to be able to monitor different levels in the CHAGG. The second tool what it can be taking in consideration is Trello what is a web-based application where the management can create their task boards with different columns and move the tasks between them. These tasks are to do, in progress and done. The management has decided to delegate one employee near the contractor and for this reason they chose this application because the management knows the status of tasks as cards move across list to done, it has an infinitely flexible setup, is can never miss a deadline with easy set due dates and calendar views, keep connected all of the team, real time updates mean everybody shares the same perspective.

1.1 ProjectLibre

According to C.K. Chang et al. (2001) due to its unsophisticated difficulty the distribution of resource and scheduling the roles in medium to massive scale development project, is an extraordinary tough stickler and is one of the main challenges of project management. The above project fortunately is not difficult, so the management has decided to deal with this project in house. The reason why the ProjectLibre tool is appropriate that is easy to use with key features, as it shows above Gantt charts, network diagrams, WBS/RBS charts, earned-value costing, resource histogram, multi project resource pools moreover is useful for small to medium projects. Take in consideration that the CHAGG project is not huge the ProjectLibre is more than good scheduling tool example for Agile methodologies and milestone tracking. Another advantage of the platform, it is for free and if is need ASAP a tool what is cost effective is one of the best choose. Moreover, there is more positive aspects that it can tracking the project, can keep organised multiple projects and can keep hierarchical organisation of projects. Finally, if somebody get stuck there are a huge number of videos and online articles to help. That is why the management cast their vote near this tool. Of course, there are exist more other applications and serious programs for planning but in this aspect and here referring to the size of the project, the number of people involved, the cost of the project, the effort for each work stage

structure the ProjectLibre is one of the most appropriate tool for the CHAGG project. Only one aspect what can be prolonged the project is the time but using the software timeline application it cannot happened any serious delay or project collapse.

1.2 Trello

Trello is a web base project management application with a minimal interface, a platform for organising works, what dealing well in special with small scale projects and another advantage of it, is available for free. Contain boards what allow user to drop and drag cards into lists what is recordable. The cards can contain different subjects such as images, attachments, deadline dates and so on depending on project. These cards can be used later, and it can be arranged as the preference of user. The application can prioritise or ordering the task from the cards, when a task is done the user can drag the card to see the progress. If the cards are not archived or removed, they can be searchable in Trello. This application is an excellent planning tool for small projects or even at home despite that cannot be used for organisations with budgeting requirement or network diagram (Woods, 2017, p. 147). This tool is not appropriate to CHAGG project because is not allowed to control budgeting and because the CHAGG project require Gantt chart too, what Trello is unable to provide. All in all, the application discussed above show just the peak of the mountain and as it was mentioned before there are available more applications, programs what can be downloaded for different sums and as well they can provide more serious platforms for even more bigger and more difficult parallel projects at the same time.

1.3 Summary of tools

Each tool has been considered and evaluate critically and has been take in consideration all the factors what can occur during the CHAGG project all the tools what can be used to avoid any difficulties. In line with this idea the management has been looking for a program or application what is free, what can monitor different financial stages such as CBS, ACWP, BCWP and BCWS, can deal with different charts, diagrams, can calculate an expected estimates Perth graph and CPM, can easily deal with different stages of tasks such as WBS, and can manage a Gantt chart what will be use through the whole project to be able to follow step by step the CHAGG project. All these together has helped the management to easily decide the perfect tool for CHAGG project, is the ProjectLibre. To positive outcome of a project meaningfully consent a project manager and the application of a project plan (Murphy and Ledwith, 2007, pp. 153 – 166).

2.0 Project and plan

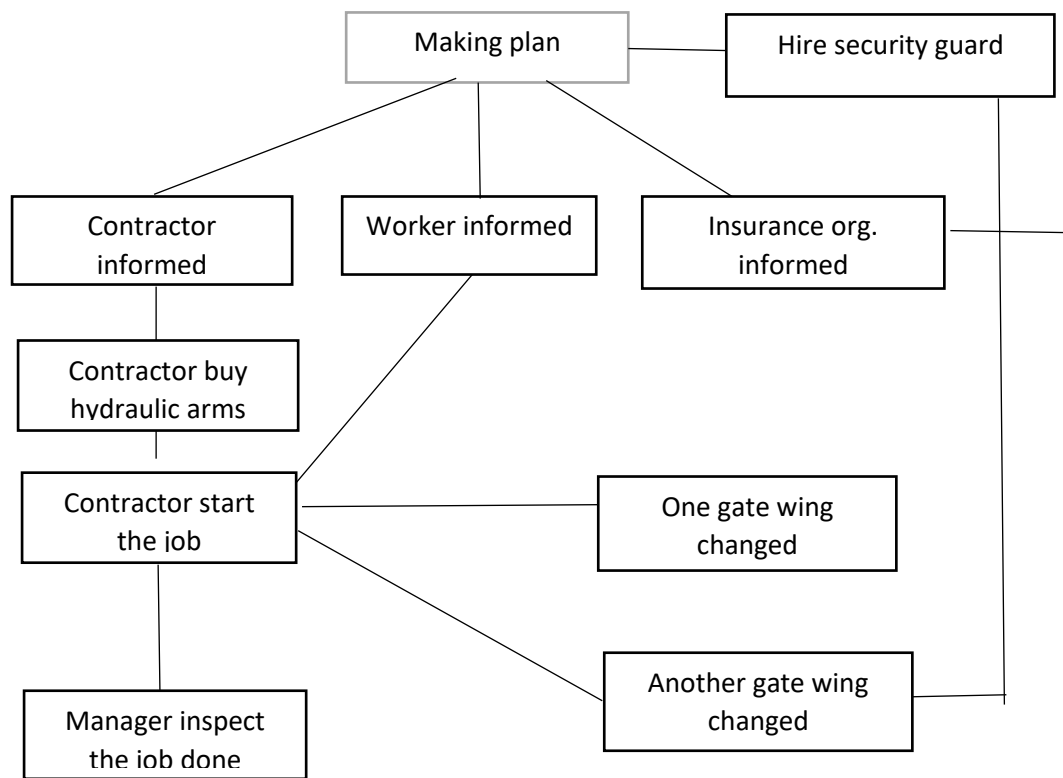
The project name is CHAGG (changing the hydraulic arm on garage gate) and how the name of the project show it must be changed two hydraulic gate arms due that the previous it was too weak. This project it comes in consideration after it was stolen two moto-bikes from one of the estate garages. The project implementation must be satisfied the highest standard because one of the main emphasis is on security, both for residents and for movables. Another important aspect of the project perfect implementation is about the reputation of the organisation may be jeopardized. Every project in general use the same stages and require their own processes and tasks which follow a corresponding framework or life cycle. This project lifecycle assists to provide some predictability and provide to the project manager a path to gear tasks in divers. Each project life cycle includes five phases, the first is the initiation phase and during this stage will be selected the project management tool, what in this case is ProjectLibre. The second is the planning phase and during this stage obviously will be create a project plan. The third is the execution phase and during this level the project will be implemented. The fourth phase will allow the management to monitoring and controlling what it means if need any adjustment about any circumstances during the project plan this is the stage where may happen. Moreover, during this phase the management can monitor the project performance. The project deliverables must be completed and accepted at the end of this stage. Finally, the fifth phase is the project closure what is a crucial step in the project management life cycle and during this step the management can communicate the success of the project with executives.

2.1 Plan

The implementation plan for CHAGG project will include essential components such as scope, deliverables, time, budget, quality, schedule, resourcing, communication and governance. **Scope** of the plan what will show tasks, activities in the form of work breakdown structure (WBS). **Deliverables** or product what will include specification documentation. **Time** will identify milestones, charts, tables or diagrams (Network diagram). **Budget** will include the cost of each activity, cost breakdown structure (CBS) and will be make an NVP and IRR calculation for the budget plan. **Quality** will show quality plan or quality assurance process. **Schedule** will allow to see actions against time through Gantt chart. **Resourcing** will identify allocation of people to activities, organisational breakdown structure (OBS) however, RACI chart. **Communication** will show how stakeholders can deliver a step, stakeholder communication plan. **Governance** will show who is the person who will monitor the plan.

2.2 Scope

First it will identify the requirement of project and estimate the budget of the project. Due that the budget must be taken from the estate early budget what is limited the management must be focus on savings therefore the value what the management can provide on the project has been estimated on £5000. The contractor has been informed about the requirements and the budget. The scope statement is that the iron gate must be strong enough to not be able to open by hands at the same time the limitation of the project has been determined in £5000. The arms with all accessories must be obtaining as soon as possible by the contractor because each day delay will be extra. The time for change of the gate wings will be two consecutive days. During the change one wings will be in operation due to the residents' use and one of the site workers will assist constant during the works as traffic marshal. A work breakdown structure will be shown below by a flow chart.



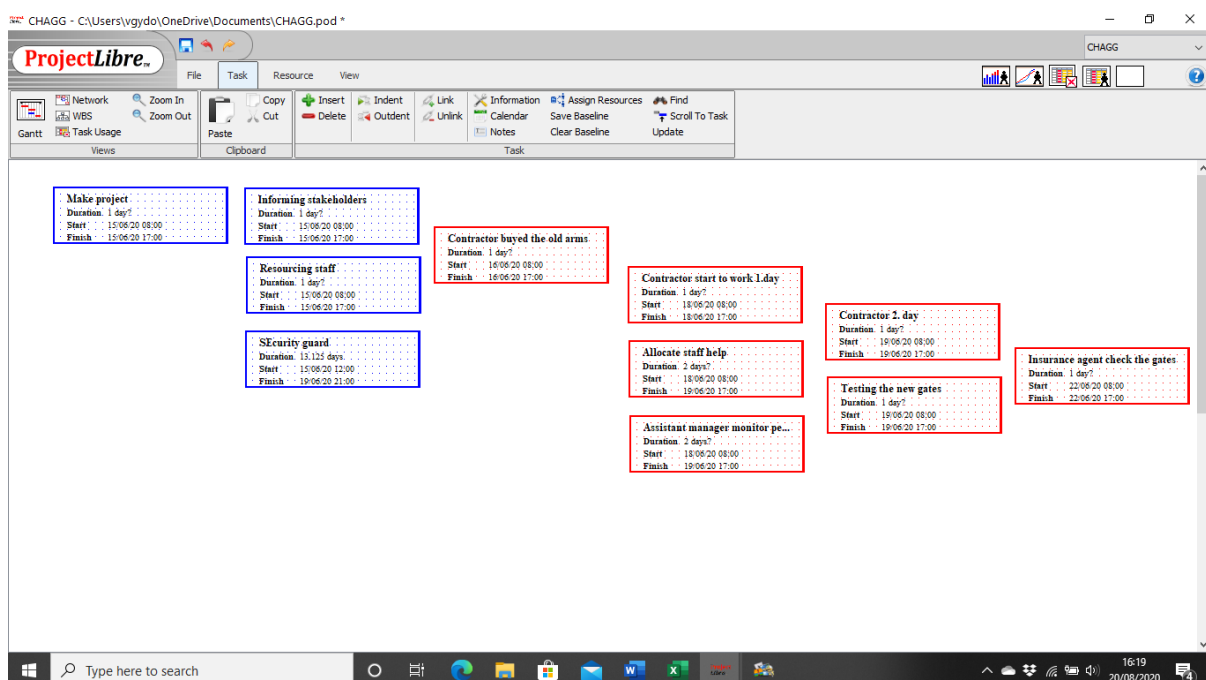
In tender projects were versatility and tolerance of insecurity are requisite public project management routine does not heading several basic sources of riskiness (Atkinson et al. 2006).

2.3 Deliverables

As it was mentioned before the deliverable of the project is the gate to be secure. This is including in documentation and the specification regard to the hydraulic arms, the welding quality and the power of electromagnets to be able to stabilise the closed gate. These deliverables must be complied with the highest standards, as Barrat quality improvement system require and of course what is available on market taking in consideration the budget of the project. According to Rogers et al. (2015) deliverables assist three critical functions: Operating as category they survey works by cares prospect for content, pattern and timing.

2.4 Time

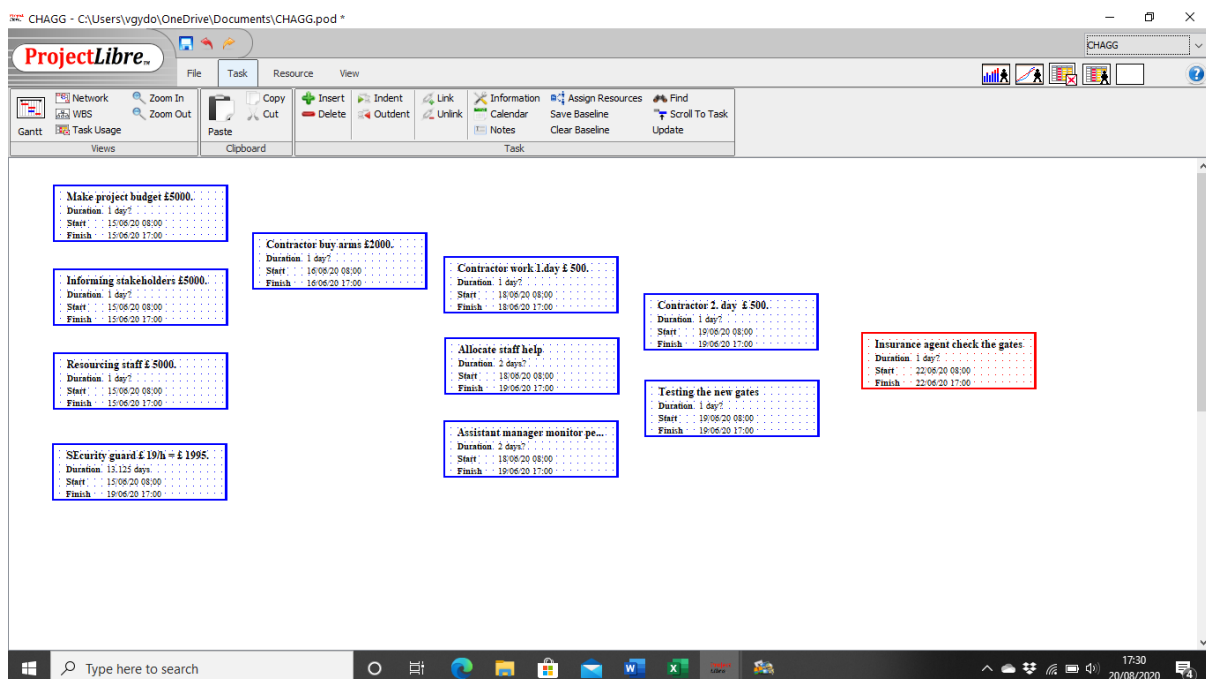
The time into a project could be significant in regard with the success of the project. Due that the CHAGG project is not huge the time is important because is related to the limited budget.



The network diagram above shows the duration of CHAGG project, what is one week and one day. The security guard job days show 12.625 days, what it come from 24 hours shift along the five days. In this context one day is been counting with 8 hours work. Total hours worked by security guards during the project is 105 hours.

2.5 Budget

As it was mentioned before the estimate budget for the whole project is £ 5,000. Before to stabilise the budget, management has done a research in regard with hydraulic arm and all accessories it was consider the price/quality dependents. In this context they were able to find a good quality product for a reasonable price. After that the contractor been informed what kind of product must to obtain. The contractor wage it was known due that it has previous jobs at the estate. The security guards must be hired from an agency and the hourly wage was the same as in the market. It was taking in consideration that in the future it will need to maintain the new arms twice a year, but this contract will be make after the project. Below is shown the cost breakdown structure of the project.



The table below show the net present value calculated together with internal rate of return. Without the essential tools to handle with unknown venture, project managers still front the summons to finishing projects within set budget (Hyukchun and Chang 2018).

Year	Cashflow		Present value	Interest rate 5%
0	-£5,000		-£5,000	(Initial outlay)
1	1000		952.38	
2	1100		997.73	
3	500		434.78	
4	750		625	
5	3000		2400	
Net Present Value NVP			£1,350.00	
Internal Rate of Return			7.09%	

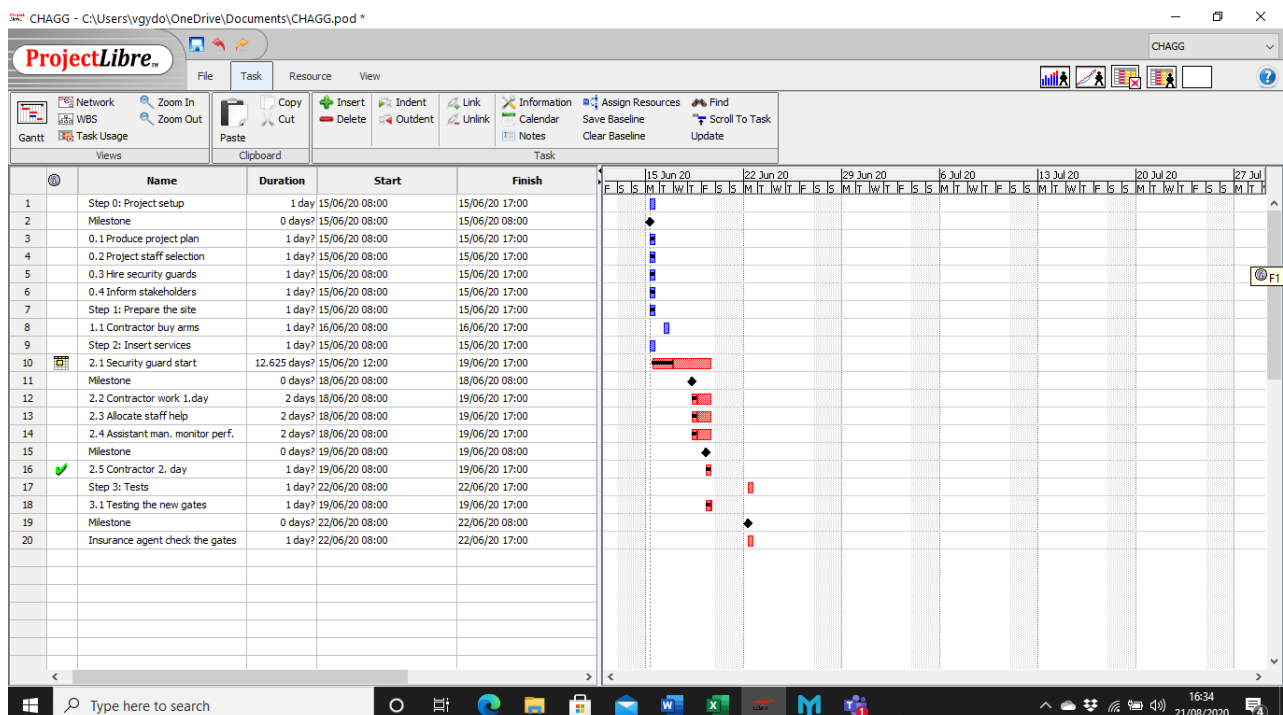
2.6 Quality

The aim of Barrat quality improvement system is to ensure that the processes and services, inside and outside of organisation are consistently high quality. Barrat has engaged in a quality improvement program with Wilson Bowden plc., David Wilson homes and Ward homes. All the staff at Barrat is liable to implement and maintain the quality system as is suitable to their function and trust. A scheme perspective to upgrading quality and achievement using repetitive design such as monitoring, assessment, action, evaluation. Barrat is engaged to the widespread implication of the stuff members, the board of directors and the stakeholders in the quality improvement actions. According to Abdous (2009) for achieve institutional objectives quality assurance request adherent milieu that especially identify quality as labour virtue.

No.	Activity	Responsibility
1.	Initiate project quality assurance pursuit	Project Manager
2.	Track project quality assurance actions	P.M.
3.	Provide statement to test the outcome	P.M.
4.	Report, monitoring and support problems	Project Manager Assistant

2.7 Schedule

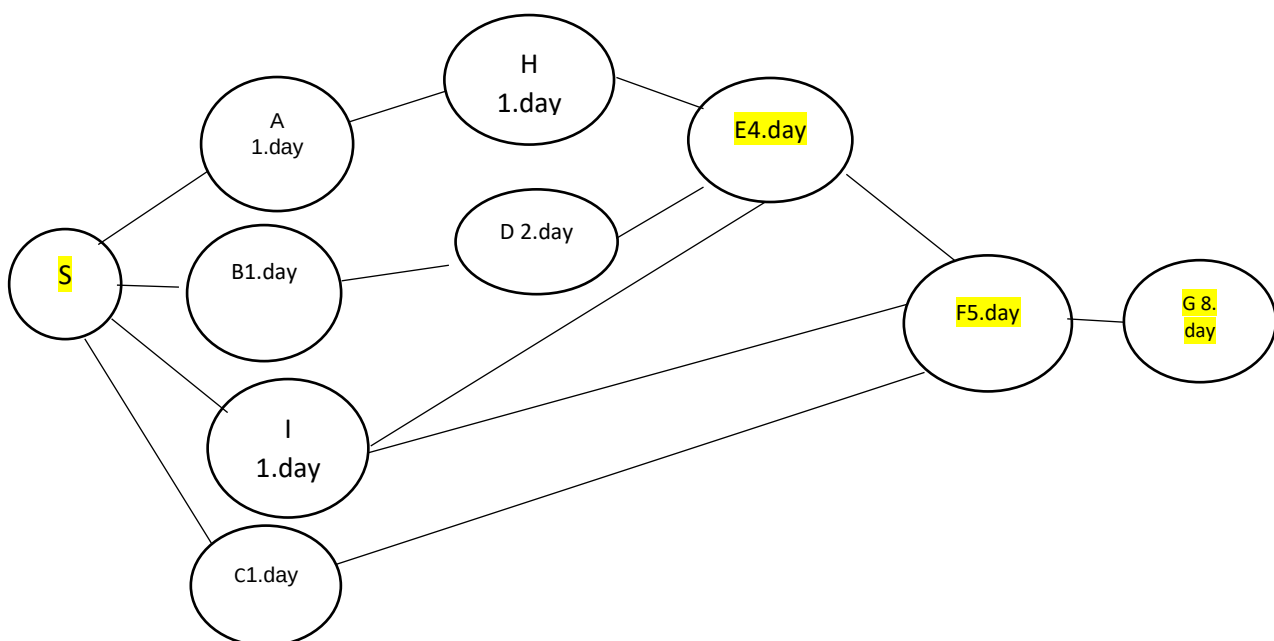
Scheduling the plan mean communicate actions against time through Gantt chart. In the Gantt chart below will be able to identify what kind of activities will be accomplish in a period. Taking in consideration that the CHAGG project is not so huge the time set to implement is not so long too. Of course, this could have changed if example the chosen hydraulic arms should have been ordered, what could have been days or even weeks to arrive. This could be resulting not just the prolonged time of the project, but it could be result in increased expenditure. That is why the management has chosen a reliable tool, a contractor what has previous experience with the organisation and the easiest way to procure the materials needed. The second method or analysis is an algorithm for scheduling project activities – critical path method – will show resolute by perceive the longest extend of pendulous actions and evaluate the time mandatory to complete them from beginning to the end. To meet the designed project milestones in the long run a scheduled driven project management strategy can guide to a malicious pattern that demote the institution facility (Yaghootkar and Gil, 2012, pp. 127- 140).



As it was mentioned before the Gantt chart show the scheduled activities in the frame of time. The CHAGG project include 11 activities divided into an interval of 8 days. The

first action is about the planning the project what is a milestone (first day). The second action of the project is project staff selection A (first day). The third action is to hire security guards at 8 am C (first day). The fourth action is to inform the stakeholders. In this case the stakeholders are the management, the team, the contractor, the insurance company and the tenants or residents B (first day). The next step to prepare the site what it means to shut down one side from the traffic H. The fifth action is the contractor buy the arms D (second day). The next step is to insert the services. The sixth action is the security guard start to work at 12am C (first day). This is the longest action during the project. The seventh action is the contractor start the work what is a milestone because it is not sure that the contractor can take down and set up one arm in one day E (fourth day). The eighth action is put to work the resourced staff as traffic marshal E (fourth day). The ninth action is the project manager assistant monitor the performance at the end of the day E (fourth day). The tenth action is the contractor start his second workday what is another milestone as well like for the first day F (fifth day). The eleventh action is the gate is done and it must be tested by the assistant project manager F (fifth day). The twelfth action is the gate must be checked by the insurance company officer what is the last milestone because if something is not good the project can be prolong (eighth day). By providing a trustful previse technique of the eventual expense and length, is to improve the ability of project mangers to create sophisticated resolutions (Lipke et al. 2008).

As it was mentioned above it will be making another method - critical path - to identify the longest path of activities through time period from the start to finish.



As the diagram shows the longest path of activities is the security guard jobs what involved 4.5 days however, this is not a milestone. The first milestone is at the S mark when the project is made. The second at E mark when the contractor starts the work.

as well as the mark F. The last milestone is at the G mark when the new gate arm is tested by the insurance agent. To break down the diagram can view that A, B, C, I must follow S. D must follow B. E must follow A, D, I. F must follow E, I, C. G must follow F. With yellow colours been marked the milestones. According to Ghomi and Teimouri (2002) the feasibility that the length of the path is bigger than or equivalent to the length of each another way in the system is the crucial indicator of a path.

2.8 Resourcing

Resourcing in the CHAGG project has been done by manager during the first day due that the project is not is huge and is not involved too much people for too many activities. The Barrat management has decided to provide two employees for the project, assistant project manager who check the gate wings after the contractor has done, and another employee to work as traffic marshal during the works. Is been hiring two security guards for day and night shift to protect the building from unauthorised access. As it seems from the critical path chart above sometimes one individual is allocated for one roll (security guards, employee, assistant project manager), sometime more individuals for one roll (contractor, employee), or it seems that more rolls age allocated to one individual (contractor buy the wings and change them). Resourcing right individuals for right roll is important in project management and is helpful to reach the end of project observed the health and safety. Institutions are searching to source and distribute faculty worldwide as the planet turn into progressively colligate by globalisation (Frances, 2008).

2.9 Communication

During the project planning the project manager has informed the stakeholders about the plan via email. In a mean time, the contractor has been called and outlined the situation and fixed the start date and the responsibilities. Due to technical default there was no indication of relevantly superior project hazard (Reed, Knight 2010). As it seems the contractor after to done with a gate wing the allocated assistant project manager has tested it both days. The employee working as traffic marshal was informed by assistant project manager via phone that the work is done and can leave. The security guard agency been informed too by assistant project manager about the project end time during the last working day based on the contractor estimates. The insurance company has been informed by the assistant project manager via email during the last working day and has been fixed the test date. Finally, the management has closed the project and all the documentation has been send to head office. According to Santalova et al. (2018) efficient institutional communications including in project management malformation of messages, knowledge overcharge and inadequate texture of the institution are obstacle.

3.0 Critical evaluation the writer ability to manage a project

This chapter will include feedback from the colleagues evaluate writer ability to plan and implement a project, will identify strength and weaknesses and finally will be create a self-development plan to improve the writer performance supported through questionnaires what will be attached as appendix at the end of the work. The writer has received feedback from colleagues and been find that the writer has a good ability to use methods or tools such as ProjectLibre because more colleagues has been ask the writer how can they do different movements in the tool mentioned above. Another feedback it was about the good level of performance due that this is the first project manage by writer. Another feedback is about the administrative performance; to establishes efficient system to successfully meet the objectives. Regarding colleague's communication: convenient and approachable for question and comments. Planning activities: the writer effectively implements plans to action. Regarding with problem solving is good to implementing solutions. Time management: plan and execute plans well. Personnel skills: the writer has good understanding and have a good mutual relationship. Improvement: accept any strategy with good results. Work productivity: good team player. Dependability: available to offer hand and answer colleagues question. However, the writer opinion is due that the usage of tool is one part of ability is too early to be able to decide critically the full abilities to manage a project. However, accepting the concept that each people implement a project day by day in a regular basis due that they wake up, going to work, implements different projects be noted that the writer ability will be shown better the truth from the appendix approached by SWOT analysis for a better view.

References

- Abdous, M. (2009) 'E-learning quality assurance: a process-oriented lifecycle model', *Quality assurance in education*, vol. 17, no. 3, pp. 281 – 295. Available at: <https://www.emerald.com/insight/content/>. (Accessed at: 23 August 2020).
- Atkinson, R., Crawford, L., Ward, S. (2006) 'Fundamental uncertainties in projects and the scope of project management', *International journal of project management*, vol. 24, issue 8, pp. 687 – 698. Available at: <https://www.sciencedirect.com/science/article/abs/pii/>. (Accessed at: 21 August 2020).
- Chang, C.K., Christensen, M.J., Zhang, T. (2001) 'Genetic algorithms for project management', *Annals of software engineering*, vol. 11, pp. 107 – 139. Available at: <https://link.springer.com/article/>. (Accessed at: 06 August 2020).
- Frances, W. (2008) 'Meeting the challenge of global resourcing', *Strategic HR review*, vol. 7, no. 2, pp. 5 – 10. Available at: <https://www.ingentaconnect.com/content/mcb/shr/>. (Accessed at: 23 August 2020).
- Ghomi, F., Teimouri, E. (2002) 'Path critical index and activity critical index in PERT networks', *European journal of operational research*, vol. 141, issue 1, pp. 147 – 152. Available at: <https://www.sciencedirect.com/science/article/abs/pii/>. (Accessed at: 22 August 2020).
- Kwon, H., Kang, C.W. (2018) 'Improving project budget estimation accuracy and precision by analyzing reserves for both identified and unidentified risks', *Project management journal*, vol. 50, issue 1. Available at: <https://journals.sagepub.com/doi/full/10.1177/8756972818810963>. (Accessed at: 21 August 2020).

Lipke, W., Zwikaël, O., Henderson, K., Anbari, F. (2008) 'Prediction of project outcome: The application of statistical methods to earned value management and earned schedule performance indexes', *International journal of project management*, vol. 27, issue 4, pp. 400 – 407. Available at: <https://doi.org/10.1016/j.iiproman.2008.02.009>. (Accessed at: 22 August 2020).

Murphy, A., Ledwith, A. (2007) 'Project management tools and techniques in high-technology SMEs', *Management research news*, vol. 30, no. 2, pp. 153 – 166. Available at: <https://www.emerald.com/insight/content/doi/10.1108/01409170710722973/full/html>. (Accessed at: 12 August 2020).

Patanakul, P., lewwongcharoen, B., Milosevic, D. (2010) 'An empirical study on the use of project management tools and techniques across project life-cycle and their impact on project success', *Journal of general management*, vol 35, issue 3. Available at: <https://doi.org/10.1177/030630701003500304>. (Accessed at: 21 August 2020).

Reed, H.A., Knight, V.L. (2010) 'Effect of a virtual project team environment on communication-related project risk', *International journal of project management*, vol. 28, issue 5, pp. 422 – 427. Available at: <https://doi.org/10.1016/j.iiproman.2009.08.002> (Accessed at: 23 August 2020).

Rogers, P., Pawlik, L., Shwom, L.B. (2015) 'The role of deliverables in project work'. Available at: <https://www.scholars.northwestern.edu/en/publications/the-role-of-deliverables-in-project-work>. (Accessed at: 21 August 2020).

Santalova, S.M., Lesnikova, P.E., Nechaeva, N.S., Borshcheva, V.A., Charykova, G.O., (2018) 'Information hindrances and communication barriers in project interaction', *The future of the global financial system: Downfall or harmony*, LNSS vol.57, pp. 273 – 281. Available at: https://link.springer.com/chapter/10.1007/978-3-030-00102-5_29. (Accessed at: 23 August 2020).

Woods, D. (2017) 'Trello', *The school librarian*, vol. 65, issue 3, p. 147. Available at: <https://search-proquest-com.ezproxy.uwtsd.ac.uk>. (Accessed at: 12 August 2020).

Evaluation of personal ability to manage a project plan

Name: Gyorgy Vegyinas

Student number: 1817909

	Very good	Good	Adequate	Little or no
Making project plan			X	
Follow project plan		X		
Implementing plan			X	
Finishing plan			X	

Using tools, technics		X		
Set up scope		X		
Deliverables			X	
Time		X		

Budget			X	
Quality			X	
Schedule		X		

Resourcing and communication		X		
------------------------------	--	---	--	--