# Homework#7

GK Posted Feb 2023

## Instructions:

Your answers should be *direct and explained*. Explanations do not have to be verbose; they should be just enough for the instructor and/or TA to understand what you are doing.

Please respond with your own words and own understanding. Copying the answers without understanding them, defeats the purpose of this homework -- it violates the code of ethics and the integrity of the course.

* *If you are* ***suspected*** *of copying any part of your answers either from a classmate or a web site (without a reference link), you get a zero to the entire homework.*
* *If it is* ***proven*** *that you have copied or plagiarized, you will be reported to your advisor, your sponsor, and the School; serious consequences to your academic record and/or your student status should follow.*
* *This is applicable to both the giving student and the recipient student*.

Please use font Arial or Calibri of 9pts or 10pts.

DO NOT REMOVE THIS PAGE FROM YOUR SUBMISSION. Also, answer the questions below:

*How long did it take you to complete this homework? \_\_\_\_\_\_3\_\_\_\_\_\_\_\_\_ hours*

*How many hours did you work on your project this week? \_\_\_\_3\_\_\_\_\_\_\_ hours*

## EXERCISE #1, 30pts

This homework is about starting your own products or services company. After graduation, you might do so or not. Nevertheless, you will enjoy doing this ***business case exercise***.

Nancy Twine created a very successful company called Briogeo. She created a major brand with premium hair products with above $40M in Sales. She was interviewed in August 2020 by a reporter and the recording of the interview is here: <https://www.npr.org/2020/08/07/900303741/briogeo-nancy-twine>

This assignment is about, listening to Nancy’s interview; keep your notes as you are listening this. You are encouraged to listen it more than once. Then,

1. **[20pts] Answer the following questions:**
2. How did she create her Business plan?
3. How much was Nancy’s revenue in 2020?
4. After the show, she talked to Urban Outfitters who *\_\_\_what did they do?\_\_\_\_* which was essential to the business
5. Nancy took each problem \_\_\_\_\_\_\_\_\_\_\_\_\_\_
6. How much the first investment by Philip? This was a game changer for her.
7. How did she find the contact in Sephora?
8. She needed higher viscosity and the right concentration for what?
9. Who is Guy Raz?

a. She googled how to create a business plan and find a website that offered a service where they would partner with people to understand people’s vision and provide financial supports. 26:08

b. 40 million dollars 2:51

c.

d. one at a time 2:00

e. $100,000 52:03

f. She did some Google searching about Margarita who might be the leader of that group 57:17

g. A treatment mask having luxurious buttery-rich texture 32:18

h. The host of this interview. He is a journalist, correspondent and radio host, currently working at National Public Radio (NPR). (from Wikipedia)

1. [10 pts] Write an essay of “***what you have learned***” regarding entrepreneurship from this interview, such as, the amount of effort, the technical difficulties, the financial struggle, the innovation aspects, etc. ***Limit your essay to the top 3-most important items that impressed you.***

*REMINDER: Copying from a classmate responses or cut-and-pasting responses from anywhere answers violates the course integrity with serious consequences.*

*NOTE: This homework will be graded by Deepali, entirely to her discretion; to get the full credit per question, your notes must be “crisp and clear”, that is, “make a good point in a short sentence”. Your essay does not have to be a thesis – it will suffice to point out 3 important characteristics of entrepreneurs.*

Be ready to discuss in the Class (2).

Answers:

From the interview with Nancy Twine, three important characteristics of entrepreneurship stand out. The first is the amount of effort required to start and grow a successful business, which includes research, dedication, and perseverance. Second, innovation is crucial for developing unique products or services that meet a specific need in the market. Third, financial management is key to building a profitable and sustainable business, especially in the early stages when cash flow can be tight. These characteristics are essential for aspiring entrepreneurs to keep in mind when starting their own ventures, and can contribute to the success of any entrepreneurial endeavor.

## EXERCISE #2, 35pts

Consider the tasks you wrote in your WBS. Then, for each task, ask the questions

* “***how difficult is it?***” and
* “***how familiar is my team (and I)?***” with this.

Then, create a table; each task in a row. Add three additional columns, labeled “Difficulty”, “Familiarity”, and “Risk”.

1. [8 pts] Next step is to fill-in a numeric metric of “Difficulty” in the scale of D = 1…4. Depending on your project type, define what “1” means, “2” means, “3” means, and “4” means. For example, you might answer this by saying:  
   * “1” means “technology known, tools are mature, task does not involve complex interactions.” *Use your own definition appropriate for your project!*
   * “2” means ….
   * “3” means …
   * “4” means “technology must be invented or acquired; task involves many interrelated pieces”. *Use your own definition appropriate* ***for the difficulty*** *o****f*** *your project!*
2. [6 pts] Similarly, define a numeric metric of “Familiarity” in the scale of F = 1, 2, 3, 4. For example, you might answer this by saying:  
   * “1” means that team members have done it before,
   * “2” means ….
   * “3” means ….
   * “4” means that none of the team members has any level of experience on this task.   
     *Use your own definition appropriate for* ***the familiarity of*** *your project!*
3. [5 pts] For each task of your project fill-in the table the above metrics in the respective columns. In the Risk” column write product of the previous two. For example,   
   * if D=1 and F=1, write R1
   * if D=3 and F=2, write R6
   * if D=4 and F=3, write R12
   * etc
4. [16 pts] Select ***the three tasks*** with the highest ***Rnn*** risk factors and explain why. Your explanation should be across the follow lines:  
   * Tx is more difficult that Ty because …
   * The team is more familiar with Tx than Ty because…

*NOTE: This homework will be graded by Deepali entirely to her discretion; I have provided to her a rubric as a guideline. The credits for each question vary depending on the in-depth thinking and quality of your work.*

Answer:

a. Difficulty levels:

1. Easy: straightforward task, well-known technology/tools, no complex interactions.

2. Moderately easy: somewhat complex task, established technology, can be completed without significant difficulty.

3. Moderately difficult: complex task, requires significant effort/expertise, may involve some level of customization.

4. Difficult: very complex task, requires extensive effort/expertise, new or untested technology/tools.

b. Familiarity levels:

1. Very familiar: extensive experience, highly proficient in completing the task successfully.

2. Moderately familiar: some experience, generally familiar with technology/tools, additional support/training may be needed.

3. Somewhat familiar: limited experience, not fully proficient, may require additional support/training/resources.

4. Unfamiliar: no prior experience, significant support/training/resources needed to complete successfully.

c.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Task ID | Task | Difficulty | Familiarity | Risk |
| 1 | Project Initiation | 1 | 1 | R1 |
| 2 | Identifying the project requirements and objectives | 2 | 2 | R4 |
| 3 | Defining the project scope and constraints | 2 | 2 | R4 |
| 4 | Assessing the project feasibility | 3 | 1 | R3 |
| 5 | Identifying the stakeholders and securing their involvement | 2 | 3 | R6 |
| 6 | Developing the project charter | 2 | 2 | R4 |
| 7 | Planning and Preparation | 3 | 1 | R3 |
| 8 | Developing the project schedule | 3 | 2 | R6 |
| 9 | Developing the project budget | 3 | 2 | R6 |
| 10 | Developing the risk management plan | 3 | 1 | R3 |
| 11 | Developing the quality management plan | 3 | 1 | R3 |
| 12 | Developing the communication plan | 2 | 1 | R2 |
| 13 | Server and Terminal Installation | 3 | 2 | R6 |
| 14 | Procuring the hardware and software components | 2 | 1 | R2 |
| 15 | Installing the server host machine | 3 | 2 | R6 |
| 16 | Installing the input/output devices (terminals) | 3 | 2 | R6 |
| 17 | Integrating the terminals with the server host | 3 | 1 | R3 |
| 18 | Testing the server and terminal installation | 2 | 2 | R4 |
| 19 | Operating System Configuration | 3 | 2 | R6 |
| 20 | Customizing the operating system to meet the company's requirements | 3 | 1 | R3 |
| 21 | Creating an image of the operating system | 3 | 2 | R6 |
| 22 | Virtual Machine Deployment | 3 | 2 | R6 |
| 23 | Instantiating virtual machines for each employee | 3 | 1 | R3 |
| 24 | Configuring the virtual machines to meet the company's requirements | 3 | 1 | R3 |
| 25 | Deploying the virtual machines to the employees | 3 | 2 | R6 |
| 26 | Testing the virtual machine deployment | 2 | 2 | R4 |
| 27 | Monitoring the virtual machines for any issues | 3 | 1 | R3 |
| 28 | Providing technical support to end-users | 3 | 2 | R6 |
| 29 | Backing up user documents | 2 | 2 | R4 |
| 30 | Fixing any issues with the virtual machines in a timely manner | 3 | 1 | R3 |

d.

Select 8, 9, 14

Task 8 and Task 9 are difficult and moderately familiar, while Task 14 is less difficult but has a low familiarity level. Developing a project schedule and budget are complex and involve many interrelated pieces, while procuring components can be complicated if the team is not familiar with the vendors and products.

Task 8 is more difficult than Task 9 because it involves more dependencies and coordination between team members. The team is more familiar with Task 9 than Task 8, but still only moderately familiar with both.

To mitigate the risks, the project manager should allocate enough time and resources, monitor progress closely, and consider bringing in outside experts or consultants if necessary.

## EXERCISE #3, 35pts

Create the Weaknesses and Threats (part of the SWOT Analysis) of your Term Project.

* Think about the ***success of the project*** (i.e. the iron triangle)
* *Do not think at task level*
* *Do not think of the success of the product or service to the market*
* *Think strictly of the success based on the deliveries and “to be accomplished” by you and your team (i.e. the Scope!)*

1. [2 pts] Cut and paste from your Scope from the Project Report here.  
   The scope of the project is to provide a whole set of services including installation, operating system image procurement, virtual machine customization and distribution, operations engineering training and technical support.
2. [9 pts] List at least three Weaknesses; explain why they are ***internal*** challenges of your implementation. Use labels as W1, W2, … etc. No need to put them in any order.   
     
   BTW, since you decided on the team members, your project plan must be defined based on their expertise – so, you may not say “my team does not have good experience”!  
   Similarly, since you had a “kickoff meeting” and you agreed on a budget, you may not say “the budget is not enough”…
3. [9 pts] List at least three Threats; explain why they are ***external*** challenges of your project; use labels as T1 (high threat), T2 (not very high threat), ... etc
4. [15 pts] Consider each W1, W2, .., T1, T2, … and assess them in terms of the ***likelihood*** to occur. Use P1 (most probable), P2 (less probable) etc as a label next to each task.
   1. Make a table with two columns: Left column to include W1, W2, … T1, T2, … Right column to include the respective P1, P2, …
   2. Explain why P1 is more probable than P2.
   3. Explain why P2 is more probable than P3.

HINTS:

* You may not include any financial aspect as a weakness or threat.
* You may not consider productivity or skill of team members as weakness. (The reason is simple: you created a plan based on the team you got with known capabilities. You plan must be based on your team’s abilities.

Answer:

a.

The scope of the project is to provide a whole set of services including installation, operating system image procurement, virtual machine customization and distribution, operations engineering training and technical support.

b. Weaknesses:

W1. Dependence on external vendors.

W2. Limited resources that could affect the ability to complete the project on time.

W3. Technical issues that may arise during the project.

c. Threats:

T1. External factors beyond the project team's control, such as third-party software, hardware, or service providers, which could lead to delays or quality issues.

T2. Changing requirements that could result in scope creep and impact project delivery.

T3. Limited budget that may affect the ability to complete the project on time.

d.

W1: P2, W2: P2, W3: P3, T1: P1, T2: P2, T3: P2

P1 is more probable than P2 for T1 because external factors beyond the project team's control can often cause delays or quality issues that may impact project delivery. P2 is more probable than P3 for W3 because technical issues may arise during the project, but they are less likely to occur than some of the other weaknesses or threats identified. Additionally, P2 is a middle ground between P1 and P3 and therefore is the most appropriate likelihood rating for W1, W2, T2, and T3.