

FamilyMealPlanning APPX

Student ID : 1124298

Student Name : Sakshi Chandel

Section 1:

Solution 1:

- 1) The major goal for the initial development of the software product is to give suggestions for the substitute ingredients (for instance replace milk with almond milk if one of the family members is lactose intolerant), based on the dietary options, allergies and intolerances set up during the family profile creation. Suggestions should be based on dietary options already set up or even if it isn't .
- 2) This project is definitely going to bring a good value for Sue as this application is going to make things easy for her and her clients. Though there is a risk as this kind of application is already available. But apart from this ,the project really is going to save a lot of time for Sue .She can take up more clients than before as she do not really need to give suggestions to the clients manually .The application is going to do it for her .Having more clients will definitely add more value to her.

Section 2:

Solution 2:

3)

Requirement	Priority	Justification
A user can set-up a family profile	High	The user needs to set-up a family profile to use the functionality provided by the FamilyMealPlanning app. This is a core feature of the app and high priority as without it, users cannot set-up their dietary requirements and the app will not be able to provide any recommendations or modify recipes based on dietary requirements.
A user should be able to add recipes	High	The user needs to be able to add recipes in the form of .pdf, .doc, .txt or using URL link and hence will be able to add recipes in the calendar so that the application can give recommendations of what ingredients to be used based on the family dietary requirements, intolerances or allergies. This is one of the core feature of the app as without this, the users would not be able to get suggestions of what ingredients to be used.
A user should be able to see recipes on the calendar	High	The user should be able to see the calendar on which user should be able to see recipes. This the core
A user should be able to able to add a substitute	Moderate	It is good if the user is able to add a substitute for ingredients he cannot add to the meal due to intolerances or allergies. This requirement is moderate as even if this feature is not available, the app should be sufficient enough to give suggestions for these substitutes based on the dietary requirements mentioned by the user.

4)

Challenges for the project (initial development)

Challenge No.	Challenge	Description
1	Making an application when some similar products already available is a challenge	Since Sue is aware that similar apps like Lite n Easy ,Marley Spoon are available.It is challenge for the developers and Sue to make users convince to use application by her . Making an app which is different and provides holistic response is a challenge. Challenge is to make an application which covers all the aspects/ needs of clients .The developer should keep in mind that the project should be efficient and good enough to tackle well the competition.
2	The time of project completion(6 months) is a challenge	The time frame of completing the project is decided to be 6 months and since developers of DevCo are working in several different projects as well,it would be difficult to manage time and hence is a challenge to get the project done on time. Since developers have agreed to do the project in 6 months ,it's a challenge as to meet us deadlines keeping in mind that they are working with other organizations as well.

5)

Risk No.	Risk	Description
1.	Inexperienced developers working in the project may lead to delay in delivering of the project.	As the project is handled by IT developers who are graduated in 2019 which makes us believe they are bit inexperienced ,also involved in other projects and hence could make it difficult for them to deliver the work and which is kind of a risk. Having inexperienced developers increases risks of product delay and meeting strict deadlines.
2.	No Project manager hired for the project which can lead to mis management .	There is no PM for the project which may lead to difficulties in managing the project timelines/deadline which is of 6 months .Not having a PM can risk the quality of the product due to non testing .Also PM manages the budget plans and not having one can really lead to budget mis management of budget.
3.	Return on investment uncertain as there are some websites already available which do the similar task.	Since there are some websites which do this task makes it a risk .Sue is investing a lot of money on the development and marketing and hence return on investment can be uncertain and is dependent on the response after the release of the initial project .There is a possible risk that after release of first part of the project , the application is not well received by the users which risks loss of time , energy and money .

Section 3:

Solution 3:

6)

There are possibly two SDLCs I can think of. The first one is Incremental approach and the other is Agile approach . I would like to share pros and cons of both approaches .But before that would like to discuss the key requirements of the project (initial phase).

Key requirements :

- i) The person should be able to signup /login and set up profile about each member of the family .
- ii) The person should be able add any dietary requirements, intolerances . allergies of each member of the family and can modify it any time .
- iii) The person should be able to add recipes and should be able to add it in the calendar.
- iv) The application should be able to give suggestions for ingredients which comes under intolerances , allergies for any member of the family (scenario 1) .

Keeping in mind the key requirements of the project , I think chances of using Incremental and Agile approach is high (according to me) and the reason being there can be changes which may occur in the future that depends on the release of the first part of the project which gives confidence in thinking to use the Agile approach. By reading the project description it feels like Sue wants to release the complete application in several parts which made be believe using the incremental approach of SLDC as well .Also in the project requirement ,there are many scenarios to be covered .As these dietary requirements may only influence one member of the family, the family has a few options. 1. Everyone eats the same meals based on the meal plan created with the help of the dietician. 2. The family eats the same as before and a separate meal is made for the individual with

the meal plan. 3. The family eats the same as before and substitutions are made for the member of the family who cannot eat an item/s in the recipe. But as we can see that in the phase 1 (initial) development of the project, only scenario 1 is covered and the other two to be included in the later part of the project which indicates there are changes to be made which make us feel that Agile approach should be the ideal approach (as it welcomes change).

Now , I would like to discuss the pros and cos of both of the approaches related to project characteristics and risks discussed above.

Incremental model

Pros :

- 1) As discussed , the project can have several changes in the future and hence using incremental model which reduce cost of changing scope/requirements .
- 2) Since Sue wants the initial development (part 1 of project) in 6 months, incremental model helps in delivering the initial part of the project faster.

Cons :

- 1) Not having a Project manager is a risk as discussed earlier and hence it's a disadvantage as incremental model needs more management attention .
- 2) Since Sue has only 6 developers for the development and hence could be a challenge as incremental model needs more resources.

Agile approach

Pros :

- 1) Since agile approach welcomes change, agile could be the one best approach to be used .
- 2) Parts of project can be released after each sprint which is one of the requirement of Sue.

Cons :

- 1) One mentioned risk above is having in-experienced developers which can be a problem as Agile needs experienced resources.

References from research papers

Incremental Model (Reference 1)

According to the journal, advantages of the incremental model are:

- Divides project into smaller parts
- Creates working model early and provides valuable feedback.

If we look at the demands of Sue , she has divided the project into smaller parts and wanted to complete the initial part of the project for now which makes me believe to use incremental model .Also Sue wants to wait for the release and wants the response from the users before starting the next phase of the development , using incremental model could be easy as will have a working model early and can work on valuable feedbacks after that.

Agile Model (Reference 2)

According to the journal (Reference 2), advantages of agile mode are :

- Welcomes changes
- Requires less time and money .

If we look at Sue's requirements , her budget is fixed of A\$30000 and she wants it to be done in 6 months .Where budget and time defined ..its better to use Agile because of its benefits of requiring less time and money .Since Sue's requirements may change in future depending on the release and response from the users ,Agile would be a good choice .

7)

According to me Agile approach should be best suited for the project .

Reasons to justify :

- i) Sue's major goal is to give suggestion to the end user about the alternative ingredients based on family members dietary requirements , allergies or intolerances and this all is based on Scenario 1 where all family members will eat the same. But since scenario 2 and 3 are not included in initial development indicates that there may/will be changes in the future which motivates to use Agile approach .
- ii) Sue wants the initial part of the project to be released in 6 months and hence following Agile we can have initial project done on time.
- iii) Sue and her sister has decided to invest A\$30000 for the initial phase development of the project and hence Agile would help in saving money . (Reference 2)

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8) Due week 8

REFERENCES

1) **Analysis of various Software Process Models [Online]**

Available : https://www.researchgate.net/figure/ncremental-Model-The-advantages-of-the-incremental-model-are-Divides-project-into_fig1_316510707

2) **Agile Methodology Adoption: Benefits and Constraints**

Available: [https://www.researchgate.net/publication/261017281 Agile Methodology Adoption Benefits and Constraints](https://www.researchgate.net/publication/261017281_Agile_Methodology_Adoption_Benefits_and_Constraints)