

1.

Agile	DevOps
1. Agile teams are typically cross-functional and self-organizing with a focus on collaboration and communication.	1. DevOps teams are also cross functional but with a greater emphasis on automation and tooling.
2. Agile emphasizes short development cycles and quick delivery.	2. DevOps focuses on continuous delivery and improvement over the long term.
3. Agile process focuses on constant changes.	3. DevOps focuses on constant testing and delivery.
4. Agile offers shorter development cycle and improved defect detection.	4. DevOps supports Agile's release cycle.
5. Feedback is given by the customer.	5. Feedback comes from the internal team.

2.

	Year 0	Year 1	Year 2	Year 3	Total
Total benefit	0	43615	58363	74169	176600
Total cost	84468	10819	12316	12776	120400
Net benefits	(84468)	32800	46050	61890	55770
Cumulative net cash flow	(84468)	(51670)	(5620)	55770	

$$BEP = \frac{\text{Number of years of negative cash flow}}{\frac{\text{That year's Net cash flow} - \text{That year's cumulative cash flow}}{\text{That year's net cash flow}}} +$$

$$= 2 + \frac{61890 - 55770}{61890}$$

$$= 2.09154$$

3. Functional requirement:

- (i) Users should be able to create an account and login to the app.
- (ii) This app should be able to pair with a specific refrigerator and identify its contents.
- (iii) This app should allow users to track the freshness of individual food items in the refrigerator.
- (iv) This app should send notifications.
- (v) This app should allow users to provide feedback on the freshness of food items and the accuracy of the app's notifications.

Non-functional requirement:

1. Operational:

- (i) This app should run on both pc and smartphones
- (ii) This app should be reliable and accurate in tracking food freshness.
- (iii) This app should connect phone or pc via wireless.

2. Performance:

- (i) This app should support a sales staff of 4-5 sales people
- (ii) This app should be fast, responsive, with minimal lag time.

3. Security:

- (i) This app should protect user data.
- (ii) This app should prevent unauthorized access and advertise.

4. Cultural and Political:

- (i) All refrigerator supports has to be from Walton.
- (ii) User's personal information is protected in compliance with Data Protection Act.

4.

