# Project Charter

## Project name:

Tech Mart

## Project sponsor: Amazon Contact Info:

Email :[cs-reply@amazon.com](https://www.businessinsider.com/reviews/out?asin&platform=browser&postSource=bi%7C5c5c4077b3573314390a47ec&postTag=biauto-1152-20&sc=false&type=AMAZON-AFFILIATE-LINK&u=mailto%3Acs-reply%40amazon.com%3Ftag%3Dbiauto-1152-20&sessionid=1639361903467oyovrnm3&tag=bisafetynet2-20).

## Project Leader:

Ramez Raed

**Team members:** Aya Ahmed David Michael Dina Ahmed

Salma Hamada Doaa Ali

## Business case:

crowding in the supermarket and long rows on the casher is one of the unlovely problems nowadays. you can spend so much time waiting in the row waiting for your turn just to buy a can of soda, and given to coronavirus dealing with people or waiting in a long raw is something not recommended nowadays. and if you want to build a market it will be a saver for you to buy electronic devices (like sensors, cameras, and launching an application) one time rather than pay monthly to a human employee for years.

## Key deliverables of the project:

The application allows the user to scan a QR code and enter the supermarket take anything he wants from the shelves and put it in his cart and just in his way getting out of the supermarket scan the QR code on the cart and get out and the purchases will be paid by his visa which is linked to the application and he will receive a notifications of the receipt of his purchases.

## General statement about how the team will approach the work.:

Team1: will be responsible for market design Team2: will be responsible for sensors and cameras

Team3: will be responsible for the software of the application

## Project milestones:

* For Two months, the market will be built and designed
* For Two weeks, a team of technical engineers will set the sensors and the cameras.
* For Two weeks, a team of programmers will make the mobile application.
* The project is being tested for 3 weeks.

## Project resources:

1. A team of technical engineering. 2- A team of programing.
2. Device of receiver. Budget: 200,000$.

Vendor:

Supermarket brands and internet markets (like carrefour, and Amazon)

## Budget:

200,000 $ (includes servers, project licenses, developers, designers, training)

## Assumption:

* + The project does not take more than 4 months.
  + The cost no more 200,000$

## Constraints:

* You must link your visa to the application
* You must have your phone when you enter the market
* The project must not exceed 200,000 $.
* The project must take time less than 4 months.
* The App is for this market only

## High level risks:

* + Increase in the cost.
  + Not to satisfy the users of product.
  + Problems in application’s system.
  + Electricity failure
  + Security Hack

# Project Scope

## Product Scope Description:

1. Hypermarket without human assistance
2. Easy fast shopping.
3. You don’t need your wallet to purchase groceries.
4. Easy useable application.

## Product Acceptance Criteria:

1. comprehensive supermarket of groceries and products.
2. ready application without bugs.

## Project Deliverables:

1. IDE that used to build the application
2. Database That collected customer’s information and their needs and taste
3. Software that used to build to set cameras and sensors

## Project Exclusions:

1. Paying with cash.
2. Shopping without the application in your mobile.
3. No market's employees except security guards.

## Project Constraints:

1. The project must not exceed 200,000 $.
2. The project must take time less than 4 months.
3. Security issues.

## Project Assumption:

* + The project does not take more than 4 months.
  + The cost no more 200,000$.
  + Application without bugs.

# WBS and WBS Dictionary

* 1. **Hypermarket:**

**Organized by: Team 1 Cost: 100,000$**

**Milestones:** For Two months, the market will be built and designed.

* + 1. Designing
    2. Find and buy a suitable place
    3. Legal requirements
    4. Purchase equipment: shopping carts, freezers, etc...
    5. Advertisement
  1. **Hardware and security:**

**Organized by: Team 2 Cost: 50,000$**

**Milestones:** For Two weeks, a team of technical engineers will set the sensors and the cameras.

* + 1. Reliable network
       1. Router
       2. Switches
       3. LAN
       4. WAN
    2. Cameras
    3. Sensors
    4. Security guards
  1. **Software:**

**Organized by: Team 3 Cost: 50,000$**

**Milestones:** For Two weeks, a team of programmers will make the mobile application.

* + 1. Planning for the app
    2. Design the app
    3. Coding
    4. Testing the app
    5. Publish the app

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Project Manager | Store Manger(Team  leader) | Application Developer | Hardware Staff | Network Engineer | Sales lead |
| Prepare the market | **A** | **P** | **—** | **—** | **—** | **P** |
| Advertisement | **A** | **C** | **—** | **—** | **—** | **P** |
| Set sensors and cameras | **R** | **P** | **—** | **C** | **P** | **—** |
| Test sensors and cameras | **R** | **P** | **—** | **P** | **P** | **—** |
| Set Reliable network | **R** | **P** | **—** | **—** | **C** | **—** |
| Define pricing models | **R** | **P** | **—** | **—** | **—** | **C** |
| Create The App | **A** | **P** | **C** | **—** | **P** | **—** |
| Test The App | **R** | **P** | **P** | **—** | **P** | **—** |
| Publish The App | **A** | **P** | **—** | **—** | **P** | **—** |

A = Approves P = Participant

C = Creator R = Reviews

|  |  |  |  |
| --- | --- | --- | --- |
| **Activity** | **Description** | **Preceding Activity** | **Activity Time** |
| **A** | **Built & Design the market** | **None** | **8 workweeks** |
| **B** | **Assign Team** | **A** | **1** |
| **C** | **Build Hardware** | **B** | **2** |
| **D** | **Code Software** | **B** | **2** |
| **E** | **Test Hardware** | **C** | **3** |
| **F** | **Test Software** | **D** | **3** |
| **G** | **Integrate Systems** | **E & F** | **1** |

**Tech Mart**

|  |  |  |
| --- | --- | --- |
| 0 | A | 8 |
| 0 | **Built & Design the**  **market** | |
| 0 | 8 | 8 |

|  |  |  |
| --- | --- | --- |
| 8 | B | 9 |
| 0 | **Assign**  **Team** | |
| 8 | 1 | 9 |

|  |  |  |
| --- | --- | --- |
| 9 | D | 11 |
| 0 | **Built & Design the**  **market** | |
| 9 | 8 | 11 |

|  |  |  |
| --- | --- | --- |
| 11 | F | 14 |
| 0 | **Test**  **Software** | |
| 11 | 3 | 14 |

**Activity-on-Node Network:**

|  |  |  |
| --- | --- | --- |
| 11 | E | 14 |
| 0 | **Test**  **Hardware** | |
| 11 | 3 | 14 |

|  |  |  |
| --- | --- | --- |
| 9 | C | 11 |
| 0 | **Build**  **Hardware** | |
| 9 | 2 | 11 |

|  |  |  |
| --- | --- | --- |
| 14 | G | 14 |
| 0 | **Integrate**  **Systems** | |
| 14 | 1 | 15 |

|  |  |  |
| --- | --- | --- |
| ES | ID | EF |
| SL | RES | SL |
| LS | DUR | LF |

## Resources:

|  |  |  |
| --- | --- | --- |
| **11** | E | **14** |
| **0** | **1P** | **0** |
| **11** | **3** | **14** |

|  |  |  |
| --- | --- | --- |
| **14** | G | **15** |
| **0** | **2P** | **0** |
| **14** | **1** | **15** |

|  |  |  |
| --- | --- | --- |
| **8** | B | **9** |
| **0** | **1P** | **0** |
| **8** | **1** | **9** |

|  |  |  |
| --- | --- | --- |
| **9** | D | **11** |
| **0** | **2P** | **0** |
| **9** | **2** | **11** |

|  |  |  |
| --- | --- | --- |
| **11** | F | **14** |
| **0** | **1P** | **0** |
| **11** | **3** | **14** |

|  |  |  |
| --- | --- | --- |
| **0** | A | **8** |
| **0** | **2P** | **0** |
| **0** | **8** | **8** |

|  |  |  |
| --- | --- | --- |
| **9** | C | **11** |
| **0** | **2P** | **0** |
| **9** | **2** | **11** |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **ID** | **RES** | **DUR** | **ES** | **LF** | **SL** | **0** | **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **10** | **11** | **12** | **13** | **14** | **15** | **16** |
| **A** | **2P** | **8** | **0** | **8** | **0** | **2** | **2** | **2** | **2** | **2** | **2** | **2** | **2** |  |  |  |  |  |  |  |  |  |
| **B** | **1P** | **1** | **8** | **9** | **0** |  |  |  |  |  |  |  |  | **1** |  |  |  |  |  |  |  |  |
| **C** | **2P** | **2** | **9** | **11** | **-2** |  |  |  |  |  |  |  |  |  | **X** | **X** | **2** | **2** |  |  |  |  |
| **D** | **2P** | **2** | **9** | **11** | **0** |  |  |  |  |  |  |  |  |  | **2** | **2** |  |  |  |  |  |  |
| **E** | **1P** | **3** | **11** | **14** | **-2** |  |  |  |  |  |  |  |  |  |  |  | **X** | **X** | **1** | **1** | **1** |  |
| **F** | **1P** | **3** | **11** | **14** | **0** |  |  |  |  |  |  |  |  |  |  |  | **1** | **1** | **1** |  |  |  |
| **G** | **2P** | **1** | **14** | **15** | **0** |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 2 |  |  |
| **Total resource load** | | | | | | **2p** | **2p** | **2p** | **2p** | **2p** | **2p** | **2p** | **2p** | **1p** | **2p** | **2p** | **3p** | **3p** | **2p** | **3p** | **1p** |  |
| **Resource available** | | | | | | **3p** | **3p** | **3p** | **3p** | **3p** | **3p** | **3p** | **3p** | **3p** | **3p** | **3p** | **3p** | **3p** | **3p** | **3p** | **3p** | **3p** |

## Planned Value (PV):

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **ID** | **0** | **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **10** | **11** | **12** | **13** | **14** |
| **A** | **5** | **5** | **5** | **5** | **5** | **5** | **5** | **5** |  |  |  |  |  |  |  |
| **B** |  |  |  |  |  |  |  |  | **10** |  |  |  |  |  |  |
| **C** |  |  |  |  |  |  |  |  |  | **25** | **25** |  |  |  |  |
| **D** |  |  |  |  |  |  |  |  |  | **5** | **5** |  |  |  |  |
| **E** |  |  |  |  |  |  |  |  |  |  |  | **15** | **15** | **15** |  |
| **F** |  |  |  |  |  |  |  |  |  |  |  | **10** | **10** | **10** |  |
| **G** |  |  |  |  |  |  |  |  |  |  |  |  |  |  | **15** |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **ID** | **DUR** | | **Task** | **Budget** | **0** | **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **10** | **11** | **12** | **13** | **14** |
| **A** | **8** | | **Built & Design the**  **market** | **40** | **5** | **5** | **5** | **5** | **5** | **5** | **5** | **5** |  |  |  |  |  |  |  |
| **B** | **1** | | **Assign**  **Team** | **10** |  |  |  |  |  |  |  |  | **10** |  |  |  |  |  |  |
| **C** | **2** | | **Build**  **Hardware** | **50** |  |  |  |  |  |  |  |  |  | **25** | **25** |  |  |  |  |
| **D** | **2** | | **Code**  **Software** | **10** |  |  |  |  |  |  |  |  |  | **5** | **5** |  |  |  |  |
| **E** | **3** | | **Test**  **Hardware** | **45** |  |  |  |  |  |  |  |  |  |  |  | **15** | **15** | **15** |  |
| **F** | **3** | | **Test**  **Software** | **30** |  |  |  |  |  |  |  |  |  |  |  | **10** | **10** | **10** |  |
| **G** | **1** | | **Integrate**  **Systems** | **15** |  |  |  |  |  |  |  |  |  |  |  |  |  |  | **15** |
| **Week total** | | | | **200$** | **5** | **5** | **5** | **5** | **5** | **5** | **5** | **5** | **10** | **30** | **30** | **25** | **25** | **25** | **15** |
| **cumulative** | | | | | **5** | **10** | **15** | **20** | **25** | **30** | **35** | **40** | **50** | **80** | **110** | **135** | **160** | **185** | **200** |
|  | | **BaselineBudget PV**  250  200  150  100 BaselineBudget PV  50  0  0 1 2 3 4 5 6 7 8 9 10 11 12 13 14  week | | | | | | | | | | | | | | | | | |

Risk Management

1. **The risks That can face our project:**
   * Increase in the cost.
   * Not to satisfy the users of product.
   * Problems in application’s system.
   * Electricity failure.
   * Security Hack.
2. **How to deal with these risks?**

* Increase in the cost🡪 Reducing costs and using less expensive materials.
* Not to satisfy the users of produce🡪 Create feedback on the application to hear customer issues and try to solve them and make offers and discounts.
* Problems in application’s system🡪 Hiring Technician team to ensure that the application runs well.
* Electricity failure🡪Providing electricity generators.
* Security Hack🡪 Improve the security of the app and use encryption.

1. **Monitor the project:**

* Creating [milestones](https://www.projectmanager.com/blog/milestones-project-management).
* Set realistic, clear and measurable goals.
* Meet regularly with team and stakeholders.
* Have clear deadlines.

## Track Key Performance.