**First Aid Information System – Work Breakdown Structure (WBS)**

**Level 1: 1.0 First Aid Information System**

**Level 2: Major Phases**

1.1 System Analysis & Planning  
1.2 System Design  
1.3 System Development  
1.4 System Testing & Validation  
1.5 Deployment & Documentation  
1.6 Project Closure

**Level 3: Tasks under Each Phase**

**1.1 System Analysis & Planning**

* 1.1.1 Gather requirements (first aid topics, content types)
* 1.1.2 Identify hardware and software needs
* 1.1.3 Define database schema (PostgreSQL)
* 1.1.4 Create project schedule and assign tasks

**1.2 System Design**



* 1.2.1 Design user interface and user experience (UI/UX)
* 1.2.2 Design database tables and relationships
* 1.2.3 Prepare prototypes
* 1.2.4 Review and approval of design

**1.3 System Development**



* 1.3.1 Frontend development using Flutter
* 1.3.2 Backend development using PostgreSQL
* 1.3.3 Integrate text, images, and videos

**1.4 System Testing & Validation**

* 1.4.1 Unit testing (individual functions)
* 1.4.2 Integration testing (Flutter + PostgreSQL)
* 1.4.3 User acceptance testing (Ministry of Health approval)
* 1.4.4 Bug fixing and optimization

**1.5 Deployment & Documentation**

* 1.5.1 Deploy app to Android application and iOS application
* 1.5.2 Conduct user training.
* 1.5.3 Prepare user manuals and technical documentation

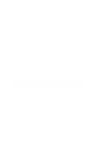
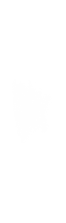
**1. 6 Project Closure**

* 1.6.1 Final review meeting and approval
* 1.6.2 Submit final report and documentation
* 1.6.3 Handover to Ministry of Health











WBS DICTIONARY

| **Code** | **Task Description** | **Assigned People** | **No. of Resources** | **Budget (LE)** | **Milestone (Date)** |
| --- | --- | --- | --- | --- | --- |
| **1.1.1** | Gather requirements (first aid topics, content types) | Ahmed Nasser (Analyst), Sarah Fathy (Researcher) | 2 | 1,000 | 05/03/2025 |
| **1.1.2** | Identify hardware and software needs | Omar Khaled (System Analyst) | 1 | 500 | 10/03/2025 |
| **1.1.3** | Define database schema (PostgreSQL) | Mariam Said (DB Designer) | 1 | 800 | 10/03/2025 |
| **1.1.4** | Create a project schedule and assign tasks | Laila Mostafa (Project Manager) | 1 | 700 | 15/03/2025 |
| **1.2.1** | Design UI/UX | Hossam Magdy (UI/UX Designer), Jana Ali (Graphic Assistant) | 2 | 1,200 | 25/03/2025 |
| **1.2.2** | Design database tables and relationships | Mariam Said (DB Designer) | 1 | 700 | 25/03/2025 |
| **1.2.3** | Prepare prototypes | Jana Ali (Designer), Youssef Kamal (Frontend Dev) | 2 | 1,000 | 5/04/2025 |
| **1.2.4** | Review and approve design | Laila Mostafa (PM), Ahmed Nasser (Analyst) | 2 | 500 | 5/04/2025 |
| **1.3.1** | Frontend development using Flutter | Youssef Kamal, Reem Tamer (Developers) | 2 | 2,500 | 20/04/2025 |
| **1.3.2** | Backend development using PostgreSQL | Mariam Said (DB Dev), Ali Hassan (Backend Dev) | 2 | 2,000 | 25/04/2025 |
| **1.3.3** | Integrate text, images, and videos | Reem Tamer, Jana Ali | 2 | 1,000 | 5/05/2025 |
| **1.3.4** | Implement offline access feature | Ali Hassan (Backend Dev) | 1 | 800 | 5/05/2025 |
| **1.4.1** | Unit testing (individual functions) | Rania Fathy (Tester), Ahmed Salah (QA Engineer) | 2 | 1,000 | 20/05/2025 |
| **1.4.2** | Integration testing (Flutter + PostgreSQL) | Ahmed Salah (QA), Youssef Kamal (Dev) | 2 | 800 | 30/05/2025 |
| **1.4.3** | User acceptance testing | Ministry of Health team (3 reviewers) | 3 | 700 | 5/06/2025 |
| **1.4.4** | Bug fixing and optimization | Developers team | 2 | 1,000 | 15/06/2025 |
| **1.5.1** | Deploy app to Android and iOS | Ali Hassan (Dev), Laila Mostafa (PM) | 2 | 1,200 | 25/06/2025 |
| **1.5.2** | Conduct user training | Sarah Fathy (Trainer) | 1 | 600 | 5/07/2025 |
| **1.5.3** | Prepare user manuals and technical documentation | Mariam Said (Tech Writer), Jana Ali (Designer) | 2 | 1,000 | 10/07/2025 |
| **1.6.1** | Final review meeting and approval | Laila Mostafa (PM), Ministry of Health Rep. | 2 | 500 | 15/07/2025 |
| **1.6.2** | Submit final report and documentation | PM + Team | 3 | 400 | 20/07/2025 |
| **1.6.3** | Handover to Ministry of Health | PM + IT Admin | 2 | 600 | **25/7/2025** |

## ****Responsibility Matrix****

| **WBS Code & Task** | **Laila (PM)** | **Ahmed (Analyst)** | **Sarah (Researcher)** | **Omar (System Analyst)** | **Mariam (DB Dev)** | **Hossam (UI/UX)** | **Jana (Designer)** | **Youssef (Frontend)** | **Ali (Backend)** | **Reem (Mobile)** | **Ahmed S. (QA)** | **Rania (Tester)** | **MOH Team** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Gather requirements** | S | R | R | S | – | – | – | – | – | – | – | – | – |
| **Identify hardware & software needs** | S | R | – | R | – | – | – | – | – | – | – | – | – |
| **Define database schema (SQLite)** | – | S | – | S | R | – | – | – | – | – | – | – | – |
| **Create project schedule & assign tasks** | R | S | – | – | – | – | – | – | – | – | – | – | – |
| **Design UI/UX** | S | – | – | – | – | R | S | – | – | – | – | – | – |
| **Design database tables & relationships** | – | – | – | S | R | – | – | – | – | – | – | – | – |
| **Prepare prototypes** | – | – | – | – | – | R | R | S | – | – | – | – | – |
| **Review & approval of design** | R | S | – | – | S | – | – | – | – | – | – | – | – |
| **Frontend development (Flutter)** | S | – | – | – | – | S | – | R | – | S | – | – | – |
| **Backend development (SQLite)** | – | – | – | – | R | – | – | – | R | – | – | – | – |
| **Integrate text, images, and videos** | – | – | – | – | S | S | R | R | – | S | – | – | – |
| **Implement offline access feature** | – | – | – | – | S | – | – | – | R | – | – | – | – |
| **Unit testing (individual functions)** | – | – | – | – | – | – | – | S | S | S | R | R | – |
| **Integration testing (Flutter + SQLite)** | – | – | – | – | S | – | – | S | S | – | R | R | – |
| **User acceptance testing (MOH approval)** | S | – | – | – | – | – | – | – | – | – | S | – | R |
| **Bug fixing & optimization** | – | – | – | – | S | – | – | R | R | S | S | – | – |
| **Deploy app (Android/iOS)** | R | – | – | – | S | – | – | S | R | S | – | – | – |
| **Conduct user training** | S | – | R | – | – | – | – | – | – | – | – | – | S |
| **Prepare manuals & documentation** | S | – | – | – | R | – | R | – | – | – | – | – | – |
| **Final review & approval meeting** | R | S | – | – | – | – | – | – | – | – | – | – | R |
| **Submit final report & documentation** | R | S | – | – | S | – | – | – | – | – | – | – | – |
| **Handover to Ministry of Health** | R | – | – | – | – | – | – |  |  |  |  |  |  |