Project name: Electronic Marking

Project sponsor: The Government

Project manager: Arwa Mohamed

Project team: Esraa Samir – Arwa Mohamed (section 2)

- **Project purpose:**
  Exams system development.

- **Business case for the project:**
  Paper correction takes a lot of time, the result is delayed, and sometimes the correctors make mistakes in the examination grades. So, this site is created to receive students' answers, correct them quickly and fairly and display the exams results at the end.

- **Key deliverables of the project:**
  Making exams correction easy, fast and fair, saving time and efforts and keeping abreast of technological advances too.

- **Basic milestone timeline:**
  At the first month: programmers will create the site.
  At the second month: site will be tested.
  At the third month: problems of site will be solved.
  At the fourth month: site will be installed in all devices in universities and schools.

- **Project resources:**

  A team of programmers.

  Education experts.

  At least 500 computers for each school and university.

  Budget: $ 400.000.

- **assumptions:**
  - A dedicated personnel from the Ministry of Education will support the team.
  - The project will not exceed $400.000

- **Constraints:**
  - The exam must be tested on the site.
  - Only students who have an academic email can use this site.
  - The project must take time less than 6 months.

- **High –level risks:**
  - Computer malfunction.
  - Network downtime during exam time.
  - Poor experience with technology.

- **Project scope:**
  1. Project scope description:

     It is a site that students to test and it will correct their forms fast as when students finish, it will display the result for them and who is successful and who is failed.

2. Project acceptance criteria:
   Accurate correction.
   Beautiful user interface.
   Easy to use, faster.

3. Project deliverables:
   Project plan, reports, documents and resources which return to the company.
   Saving efforts and time.

4. Project exclusions:
   The site corrects the forms and displays their results only, and it is not possible to display the total result for all students because it needs more time and cost.

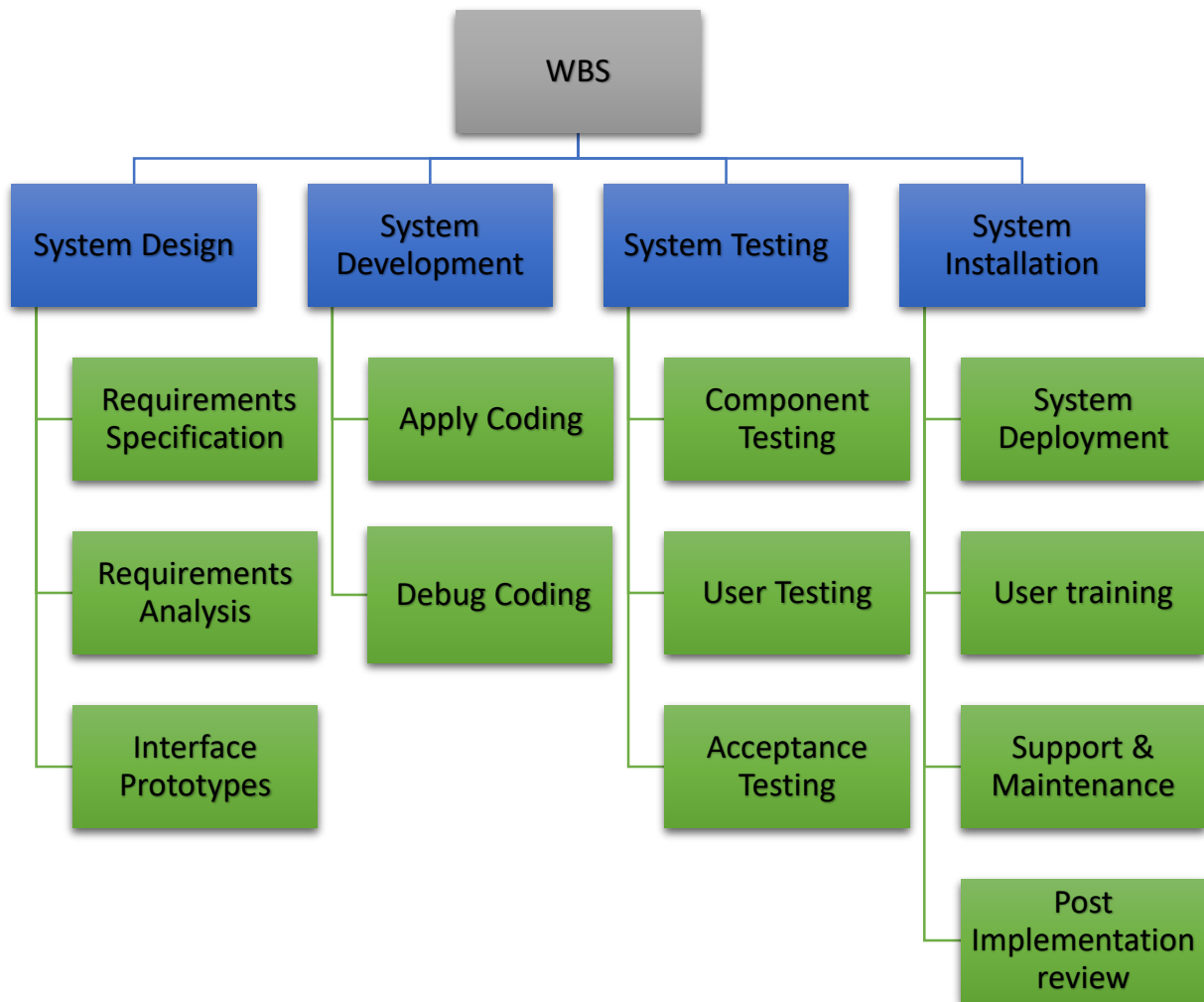5. Project constraints:
   Rules of company and policies.
   Budget.
   Time of submit.

6. Project assumptions:
   This site can used by students and teachers only.

- **Work Breakdown Structure:**

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                              ┌─────────┐
                              │   WBS   │
                              └────┬────┘
        ┌─────────────┬───────────┼───────────┬──────────────┐
 ┌─────────────┐ ┌─────────────┐ ┌─────────────┐ ┌─────────────┐
 │System Design│ │   System    │ │System Testing│ │   System    │
 │             │ │ Development │ │             │ │Installation │
 └──────┬──────┘ └──────┬──────┘ └──────┬──────┘ └──────┬──────┘
        │               │               │               │
 ┌─────────────┐ ┌─────────────┐ ┌─────────────┐ ┌─────────────┐
 │Requirements │ │Apply Coding │ │ Component   │ │   System    │
 │Specification│ │             │ │  Testing    │ │ Deployment  │
 └─────────────┘ └─────────────┘ └─────────────┘ └─────────────┘
 ┌─────────────┐ ┌─────────────┐ ┌─────────────┐ ┌─────────────┐
 │Requirements │ │Debug Coding │ │ User Testing│ │User training│
 │  Analysis   │ │             │ │             │ │             │
 └─────────────┘ └─────────────┘ └─────────────┘ └─────────────┘
 ┌─────────────┐                 ┌─────────────┐ ┌─────────────┐
 │  Interface  │                 │ Acceptance  │ │  Support &  │
 │ Prototypes  │                 │  Testing    │ │ Maintenance │
 └─────────────┘                 └─────────────┘ └─────────────┘
                                                 ┌─────────────┐
                                                 │    Post     │
                                                 │Implementation│
                                                 │   review    │
                                                 └─────────────┘
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- **WBS dictionary:** System design: design login module, design reports module and Program interface design. System development: apply coding, training materials. System testing: test each of modules, test to ensure we are ready to go. System Installation: install the site in all devise in university and training the users.

- **Responsibilities matrix:**

Tasks	Project Manager	Project Sponsor	Project Team	Programmers	Finance Team
Made the Initial plan	R		C		
Budget	R	S			C
Create The System	A	S	C	R	
Test the system	A		R		
Identified the risk and problems			R	C	
Solve the problem	A	S	R	R	
Reports & Analysis	R	C			

R = Responsible

S = Support

C = Consult

A = Approval

Project Network:
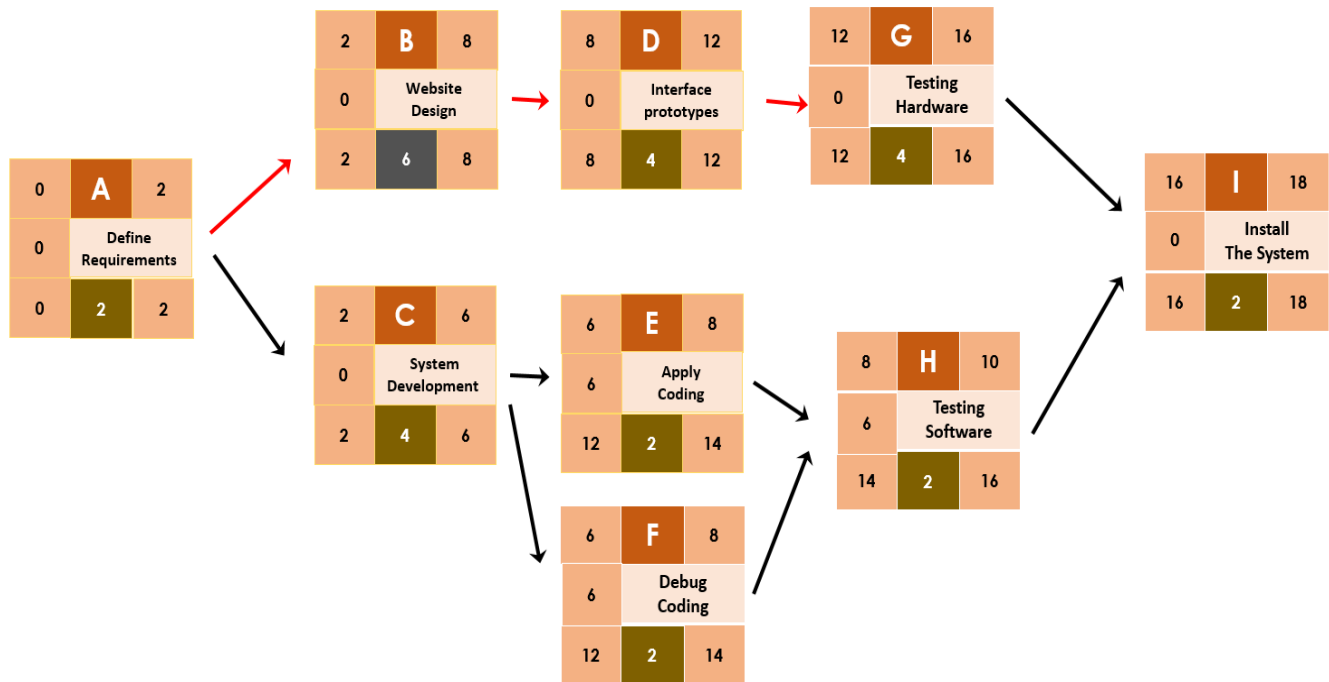
- ## Resource Constrained Project:

ID	RES	DUR	ES	LF	SL	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
A	2P	2	0	2	0	2	2																		
B	2P	6	6	12	0							2	2	2	2	2	2								
C	2P	4	2	6	0			2	2	2	2														
D	1P	4	8	12	0									1	1	1	1								
E	1P	2	6	14	6							1	1												
F	1P	2	16	18	6																	1	1		
G	1P	4	12	16	0													1	1	1	1				
H	1P	2	18	20	6																			1	1
I	1P	2	16	18	6																	1	1		
Total Resource Load						2P	2P	2P	2P	2P	2P	3P	3P	3P	3P	3P	3P	1P	1P	1P	1P	1P	1P	1p	1P
Resource Available						3P	3P	3P	3P	3P	3P	3P	3P	3P	3P	3P	3P	3P	3P	3P	3P	3P	3P	3p	3P

- **Budget Baseline:**

ID	Task	Budget	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14
A	Define Requirements	20	10	10													
B	Website Design	50							20	10	20						
C	System Development	60			10	20	20	10									
D	Interface Prototypes	30									10	10	10				
E	Apply Coding	50							25	25							
G	Debug Coding	40									20	20					
G	Testing Hardware	25											15	10			
H	Testing Software	25											15	10			
I	Install The System	40													20	10	10
Total		340	10	10	10	20	20	10	45	35	50	30	40	20	20	10	10
Commutative			10	20	30	50	70	80	125	160	210	240	280	300	320	330	340

- **Project Management Risk Management:**

  (1) Not all educational organizations have the technological capacity to adopt an electronic correction system Therefore, many problems are expected if this system is applied to all educational organizations at once in Egypt.

  We took this problem into consideration and developed a solution and development plan for all educational organizations:

  First, statistics and reviews must be made that measure the tolerance of all educational organizations individually, and then reports should be prepared that include percentage evaluations indicating the extent of the institution's ability to implement the system, and set a certain percentage as a minimum for evaluation. Institutions whose rating is equal to or more than the minimum have the ability to implement the system. Thus, the risk of lack of electronic competence in the institutions was avoided.

  Secondly, the state carries out development operations for all institutions that have not exceeded the minimum level and provides them with the necessary resources to be able in the near future to keep pace with technological development and follow up on those processes through specialized committees.

(2) As we mentioned that not all institutions are able to withstand the system, there is also a risk in the lack of efficiency in dealing with the system on the part of the employees in the institution

But in this problem, the census and evaluation of employees in the same way as institutions will be useless, so it is better to do tests that measure their efficiency and assign trainers to train and teach employees modern technological methods in order to be able to deal with the system.

(3) There are some problems that may occur during the electronic correction, for example, a power outage or a malfunction in the institution's network, and we do not know a solution that will last for a short or long time, and perhaps during these malfunctions important data is lost, so when applying the system in any institution, instructions are placed Certain.

For example,

1-Not to turn off or disconnect the electricity from the devices before making sure that the correction process occurred successfully.

2-Placing the data in storage devices such as CD and keeping those copies.