![Momkn Space الأهلي logo]

FULL DAY CHALLENGE
12 JUNE - 10 JULY 2024
UNLEASH YOUR OWN POTENTIAL

What's in ?

1. Experience. full day in a dynamic fintech enviornment.
2. Business exposure with a key market player.
3. Meet with hiring managers.
4. Present your work to Board Of Directors.
5. Get Trained on pitching and fund rasining.
6. Opportunity to win internship assignments.
7. Reserve an employement slot.
8. Obtain valuable Certficate of Achievemnet.

	Start	End
Application Phase	7 June 2024	10 June 2024
Engagement Phase In Office	12 June 2024	30 June 2024
Rehersal Phase In office & College	1 July 2024	4 July 2024
Closure in College	10 July 2024	

WHAT YOU WILL DO

1. REVERSE ENGINEERING.
2. SOFTWARE DEVELOPEMENT.
3. REAL INTEGRATIONS.
4. TEST AUTOMATIONS.
5. PACKAGING & DEPLOYMENT.

Eligibility and terms

- **4th** grade, Faculty of Computer Science, Ain shams university.

- For new applicants **Contact form** must be submitted, for those who already applied no need to re-submit

- For new apllicants to the projec, Technologies **FIGMA++**, **Java, .NET, Python, NodeJs, REACT, Flutter, Android java or kotlen, Automation, <u>HUGE EDGE for Syllenium, Image processing and NLP.</u>**

- The Applicants must review and submit **Enrollment Form.**

- Accepted applicants commit to **(10 am - 4 am)**, **Two days working from home.**

- The hiring managers shall judge only **complete integrated projects.**

CONTACT FORM
https://forms.gle/W71zaCk18n7y7RrA8

Project 1a - Academic Balances Portal

Values - Bulk Calculations, Bulk Files
Client - Academic professors
Partners - Universities

Mobile Business requirements (**Requests**)
1. **Courses configurations**
   a. Create University tree.
   b. Create Courses.
   c. Create Professors.
2. **Transfer File**
   a. Download **Transfers template**
   b. Upload and process **Transfers File.**
   c. View and filter File Records.
   d. Edit and Delete records.
3. **Balances confirmation**
   a. Filter Academic years.
   b. Calculate Sum of transfer amounts per academic year
   c. Calculate course share of transfer amounts
   d. Calculate professors share of transfer amounts
   e. Admin can View, Filter Academic Courses and Professors amounts.
   f. Admin Edit and Delete records.
   g. Admin can Donwload records
   h. Admin can confirm bulk of records.

Usecase 1: Before recieveing tution payments from students, Admin must configure new universities, faculties, academic year and courses.
Usecase 2: Admin can add number of hours per course and number of professors that deliver the course, each professor has his own share in the course.
Usecase 3: After recieveing tution payments from students, Momkn shall extract tarnsfers file and the Admin shall upload it on this portal.
**Usecase 4:** Once transfers file is uploaded, the system shall calculate the professors shares in the course.

Business Example
1. **Parent Account** Ain Shams university
2. **Child Account** Faculty of Computer Science
3. Assume, **Academic year** 1 = **40 hours**
4. Assume, **Academic Year** 1 = **2 courses**
5. Assume, **Course A = 10 hours**.
6. Assume, **Course B = 30 Hours**
7. Assume, Course A has **two professors**
8. **Prof A = 25%, Prof B = 75%**
9. Assume, **Course B** has **two professors**
10. **Prof B = 50%, Prof C = 50%**

balances Calculation example
1. Upload **trasnfers file.**
2. Iterate **Parent, Child and Academic N**
3. **Sum of transers** of Academic 1 = **1 Million EGP**
4. **Course A** share **=** 1 Million*10/(40) = **250 K EGP**
5. **Course B share =** 1 Million*30/(40) = **750 K EGP**
6. Prof A share in Course A = 250K*25 = **62.5 K EGP**
7. **Prof B share in Course A=** 250K* 75% = **187.5 K EGP**
8. **Prof B share in Course B=** 750K* 50% = **325 K EGP**
9. Prof B share = 325 + 187.5 **512 K EGP**
10. Prof C share in Course B= 750K* 50%= **187.5 K EGP**

bulk action, UI
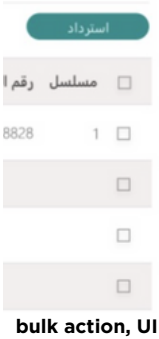
	Mobile	**Front**	**Backend**	**DB**	**Scrum**
Education Portal	NA	REACT	Python / .NET	SQL	Asana

Project 1b - Cash out App

Values - KYC, Receieve notifications, Cash out
Client - Academic Professors
Partners - Universities

Mobile Business requirements (**Requests**)
1. **Professor load his <u>National ID:</u>**
   a. Capture Clear Arabic document Image + instrcutions.
   b. Send to backend.
   c. Backend to Parsine, Store NID data
   d. View and Confirm NID Data form.
   e. Static QR code
2. **Professor recieve <u>Bulk Notification</u>**
   a. Recieve Notifications.
   b. View Notification.
3. **Professor <u>Cash out</u>**
   a. Balance Inquiry.
   b. Cash out form (Amount)
   c. Cash-out Approval
   d. Generate **Code**.
   e. Payment confirmation.

Usecase 1: Academic staff shall use the application to store their National ID data, then present it these data in a QR form.
Usecase 2: from project 1b, Consumers shall use the application to be notified with his balance update
Usecase 3: Academic staff can generate cashoiut code and confirm payout.

Web Portal
1. Academic Balance portal (inetgarted with project 1b)
2. Bulk Notification tool

	<u>Mobile</u>	**<u>Front</u>**	**<u>Backend</u>**	**<u>DB</u>**	**<u>Scrum</u>**
Cashout App	Android	Any	Java	SQL	Asana

Project 2 - Super App

Values - Access Control, Ordering, Services booking
Client - Students
Partners - Gated Communities

Mobile Business requirements (**Requests**)
1. **Student load his <u>National ID:</u>**
   a. Capture Clear Arabic document Image + instrcutions.
   b. Send to backend.
   c. Backend to Parsine, Store NID data
   d. View and Confirm NID Data form.
   e. Static QR code
2. **QR Access**
   a. Scanning by security Agent Mobile.
   b. Validation by security Agent Mobile.
3. **Ordering**
   a. Catalog Sync.
   b. SKU Inquiry.
   c. SKU Book.
   d. SKU Process
   e. SKU Report
   f. Invoicing Report
4. **Service Booking**
   a. Book Service.
   b. Book Service Agent.
   c. Book Schedule.

Usecase 1: Security agent can scan QR and verify QR code of a student
Usecase 2:
- Students can book service (like بيان نجاح,
- book schedule like 5 الساعة وثلاثاء - أحد رياضي نشاط
- book service Agent like عيادة باطنة – دكتور أيمن
Usecase 3: □ Student can order from inventory
Usecase 4: Student can view services and orders history

Web Portal
1. Display Three summary pages a table with filters one for Access, Ordering and Services booking
2. Select and view one request details .approve or reject, one by or one.
3. Can Approve or reject by services in a bulk actions

bulk action, UI

	Mobile	**Front**	**Backend**	**DB**	**Scrum**
Community App	Flutter	REACT	Node Js	Mongo	Asana

Project 3 - Wallet Settlement Portal

Values - Wallet Control - End of day activity
Client - Financial corporates
Partners - Banks

https://docs.google.com/presentation/d/19K9kO3Shcm-gHXwwv4x_9hm3nrIO1RFk/edit?usp=drive_link&ouid=103534225127920389816&rtpof=true&sd=true

Usecase 1: Corporate user upload deposit data
Usecase 2: Bank user approve or reject deposit data
Usecase 3: Bank user can make balance correction (add/deduct) amount.
Usecase 4: Bank and coprorates can view the updated corporate balance
Usecase 5: Bank and coprorates can view the transactions made on corporate balance
USecase 6: Bank and coprorates can view Opening and closing balances
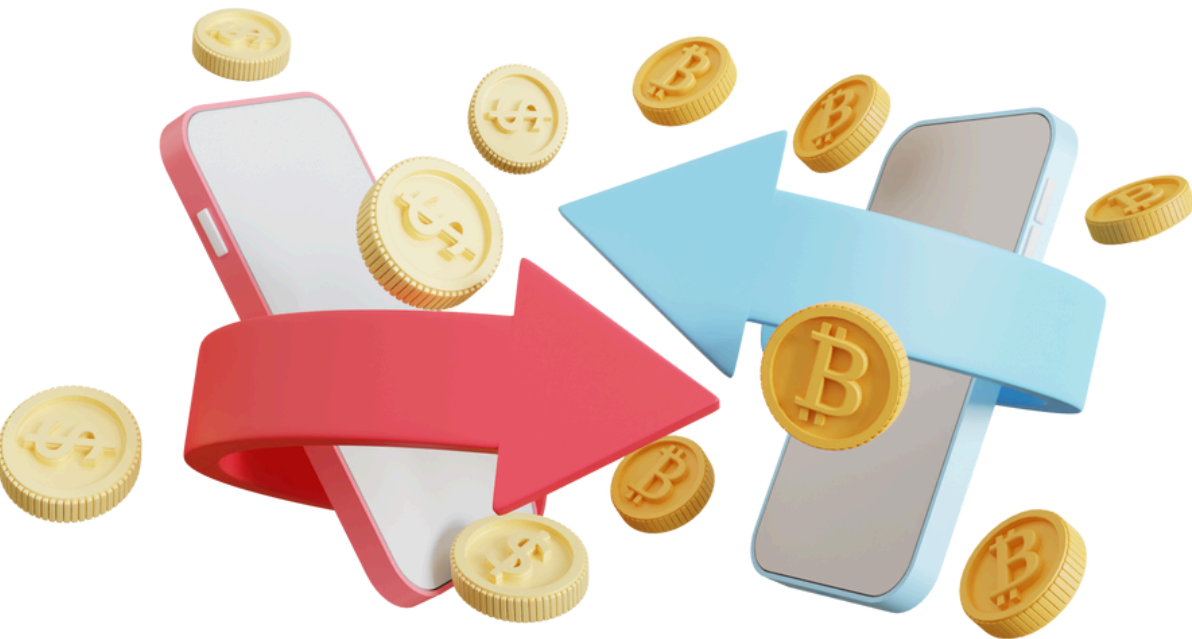
	Mobile	Front	Backend	DB	Scrum
Education Portal	NA	REACT	Node Js	SQL	Asana

Sequence diagrams

https://drive.google.com/file/d/1B7NNMrBmSF_rkRHkkLdTNP8GaffrjSXt/view?usp=drive_link