

# Personas

*From interview data to a defensible Phase 1 deliverable*

**Hisham Ihshaish**

Birzeit University · COMP322 · Second Semester

# Where we are, and what today buys you

*Recap and the promise of this session*

## Where we are

- User-centred design (ISO 9241-210) is iterative
- Heuristic evaluation surfaces problems in existing systems
- But heuristics tell us what is wrong, not who is harmed
- Personas answer the “who” - concretely, in one page

## By the end of today

- Distinguish persona from user profile, segment, stereotype
- Run the six-step pipeline from raw interview to persona
- Build one banking-app persona together, live
- Spot the four anti-patterns at a glance
- Submit Phase 1 personas with confidence

# Why personas exist: the elastic user problem

*Cooper, 1999 - every team has one*

*“When we say ‘the user’, the user stretches and shrinks to fit whatever argument we are making.”*

*paraphrasing Alan Cooper, The Inmates Are Running the Asylum (1999)*

## Marketing says ‘the user’:

*A busy 45-year-old executive who needs dashboards.*

## Developer says ‘the user’:

*Someone exactly like me, who reads documentation.*

## CEO says ‘the user’:

*Whoever the CFO showed me yesterday.*

**A persona pins the rubber band down. One named, evidenced person. The team designs for them.**

# What a persona is

*An evidence-based archetype, not a character*

A **persona** is a *fictional but evidence-based archetype* representing a cluster of real users with shared goals, behaviours, and contexts.

- 1 fictional** Not one real human. Layla does not exist as a person you can interview.
- 2 evidence-based** Every claim comes from data. No interview = no claim.
- 3 archetype** A clear example of a type, not a statistical average.
- 4 cluster** Multiple real users, grouped by behavioural similarity.
- 5 goals, behaviours, contexts** These predict design needs. Age and gender usually do not.

# A 30-second history

*So you can cite the method correctly*

**Late 80s**

While consulting, Cooper develops the habit of “interviewing” imaginary users (notably Kathy, a project manager) to clarify design decisions.

**1999**

Cooper publishes the method in *The Inmates Are Running the Asylum* (Sams Publishing) - the persona is named in print for the first time.

**2006**

Pruitt & Adlin publish *The Persona Lifecycle* - a detailed manual for building, validating, and maintaining personas.

**2009**

Kim Goodwin codifies the data-driven version in *Designing for the Digital Age* - the version industry uses today.

# Three things that look like personas but are not

*User profile vs. market segment vs. stereotype*

## User profile

ملف المستخدم

**A list of demographic facts.**

Example

*“25-year-old woman, Ramallah, iPhone, BSc Business.”*

Why it fails

No goals, no behaviour. Cannot tell you what to design.

## Market segment

شريحة سوقية

**A group defined by purchase behaviour.**

Example

*“Young professionals, 22–30, disposable income, banks digitally.”*

Why it fails

Tells you who to advertise to. Not what features to design.

## Stereotype

صورة نمطية

**A cultural shortcut, not evidence.**

Example

*“The typical Palestinian student is...”*

Why it fails

Reflects the designer’s biases. Excludes real users.

# The test: can your persona make a decision?

*If not, it is decoration, not a tool*

## **FAILS the test**

*“Layla, 25, woman, Ramallah, iPhone, BSc.”*

**Try to use this to make a design decision:**

- Should balance display without full login? Cannot tell.
- Should the home screen load fast? Cannot tell.
- Should salary date be prominent? Cannot tell.

## **PASSES the test**

*“Layla checks her balance 6+ times daily during 2-minute breaks at her teaching job, and panics if salary is late.”*

**Now design decisions follow:**

- Balance peek without full login. Yes.
- Home screen must load in under 2 seconds. Yes.
- Salary-arrival alert and expected-date widget. Yes.

# Anatomy of a good persona

*Nine fields, each earning its place*

## 1 Name

Real-sounding, reflects population. “Layla” not “User 1”.

## 2 Photo

A face. Job is humanising, not aesthetics.

## 3 Demographics

Age, role, location. Three lines max.

## 4 Goals

What they are trying to achieve, in their words.

## 5 Behaviours

How often, when, in what pattern they act.

## 6 Frustrations

What makes them angry. Direct interview quotes.

## 7 Tech literacy

Concrete: “Comfortable with WhatsApp; avoids menus.”

## 8 Context of use

Where, when, what device, with whom.

## 9 Representative quote

One sentence in their voice. Pulled from data.

# Every line must earn its place

*Tested against Layla's card:*

*"Layla checks her balance 6+ times daily during 2-minute breaks at her teaching job, and panics if salary is late."*

Layla detail	Design implication	Verdict
25 years old.		
Loves football (mentioned in interview).		
Bank of Palestine customer for 3 years.		
Samsung A14, 12 GB monthly plan.		
Uses on bus, 2-min windows, one-handed.		
Panics if salary delayed.		

*Three lines in, three lines out. The card stays one page; the persona stays sharp.*

# Every line must earn its place

*Tested against Layla's card:*

*"Layla checks her balance 6+ times daily during 2-minute breaks at her teaching job, and panics if salary is late."*

Layla detail	Design implication	Verdict
25 years old.	None on its own.	<b>COMBINE OR DELETE</b>
Loves football (mentioned in interview).	None for a banking app.	<b>DELETE</b>
Bank of Palestine customer for 3 years.	None - same design serves new and longstanding customers.	<b>DELETE</b>
Samsung A14, 12 GB monthly plan.	Low-bandwidth design; video off by default; mid-tier performance budget.	<b>KEEP</b>
Uses on bus, 2-min windows, one-handed.	Balance peek on home; large tap targets; no horizontal swipes.	<b>KEEP</b>
Panics if salary delayed.	Salary-arrival push; expected-date widget; in-app status.	<b>KEEP</b>

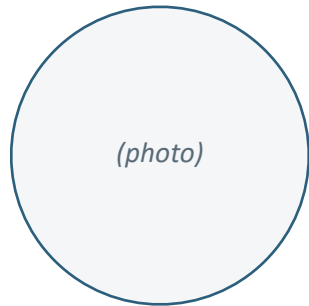
*Three lines in, three lines out. The card stays one page; the persona stays sharp.*

# Worked example: Layla, the salary checker

A finished persona card for our banking-app project

Persona card: the one-page document your team submits for each persona in Phase 1. Nine fields. Every claim traces to interview data.

## LAYLA · Primary persona · Banking app



### Layla A.

25, Teacher  
Hebron / Ramallah

#### Goals

- Confirm salary arrived, fast
- Pay landlord without queues
- Send money to family in Gaza

#### Behaviours

- Checks balance 6+ times a day
- Sessions last 1 to 2 minutes
- Peaks on the 22nd (payday)

#### Frustrations

- App logs out every 90 seconds
- OTP arrives late or not at all
- Arabic interface mixes RTL and LTR
- No clear “when will salary arrive”

#### Tech and context

- Comfortable: WhatsApp, camera, Maps
- Avoids: anything with tabs or menus
- Device: Samsung A14, 12 GB plan
- Uses on bus, 2-min windows, one-handed

*“I just want to see if the salary arrived. I do not want to log in three times for one number.”*

*Composite quote, drawn from interviews with P1, P2, P3*

# Where every line of Layla came from

*The evidence trail behind the card*

**How to read this:** P1, P2, P3 are our three interviewees. Timestamps (e.g. 03:14) mark the moment in that interview's audio recording. "Observation" means we noted it while watching them use the app, not from what they said.

**"Checks balance 6+ times a day"**

*comes from*

*P2, interview, 03:14: "I open it before class, after class, twice on the bus."*

**"Sessions last 1 to 2 minutes"**

*comes from*

*P2, observation: we watched her unlock-and-check the app three times during the interview; each session lasted under 2 minutes.*

**"Peaks on the 22nd (payday)"**

*comes from*

*P2, interview, 04:30: "On the 22nd I refresh four, five times before lunch."*

**"Logs out every 90 seconds"**

*comes from*

*P1, P2, P3 all reported being logged out mid-task; P2 timed it on her phone.*

**"Avoids tabs and menus"**

*comes from*

*P2, interview, 11:22: "If I do not see it on the first screen, I assume it is not there."*

**"Samsung A14, 12 GB plan"**

*comes from*

*P1, P2 self-report; P3 used a similar mid-range Android.*

**Rule: every line on the persona card must trace to at least one interview, observation, or document.**

# The pipeline: raw interviews to one-page persona

*Six steps. Two personas should take a team 6–8 hours total.*



*Steps 1–2 happen during and immediately after each interview. Steps 3–6 happen once all interviews are done.*

# Step 1: Coding the transcripts

*Read line by line. Tag every significant statement.*

Transcript excerpt (P2, 03:14)

*“I check my balance like five or six times a day, just because I am paranoid the salary will not arrive on time.”*

Codes assigned:

frequent-balance-check

salary-anxiety

Two rules

- Codes are noun-phrases, not sentences
- Stay descriptive; do not jump to interpretation

## For your Phase 1 project

Spreadsheet, three columns:

- A. Quote
- B. Code(s)
- C. Participant ID

Code within 24 hours of each interview.  
Aim for 30 to 60 codes per interview.

## How researchers do it

Two analysts code the same transcript independently, then compare. This is called **intercoder agreement** (Saldaña, 2021).

*Disagreements show where the data is ambiguous; those moments are often the most revealing about real users.*

# Step 2: Affinity diagramming

*Group similar codes; let clusters emerge bottom-up*

## Codes from 3 interviews (raw)



## After clustering

### Anxiety about money

frequent-balance-check (P1, P2, P3)  
salary-anxiety (P2, P3)  
prefers-branch-for-large (P1, P3)  
trusts-cash-over-app (P3)  
asks-brother-for-help (P3)

### App reliability problems

otp-late (P1, P2)  
logout-too-fast (P1, P2, P3)  
arabic-rtl-bug (P1, P3)  
wrong-amount-shown (P2)  
no-arabic-help (P1, P3)  
no-budget-view (P2)

# Step 3: Extract behavioural variables

*Five general types; many project-specific instances*

## Five types of behavioural variables (Cooper et al., 2014, About Face)

**Activities**

*what they do*

**Attitudes**

*how they feel*

**Aptitudes**

*training*

**Motivations**

*why they engage*

**Skills**

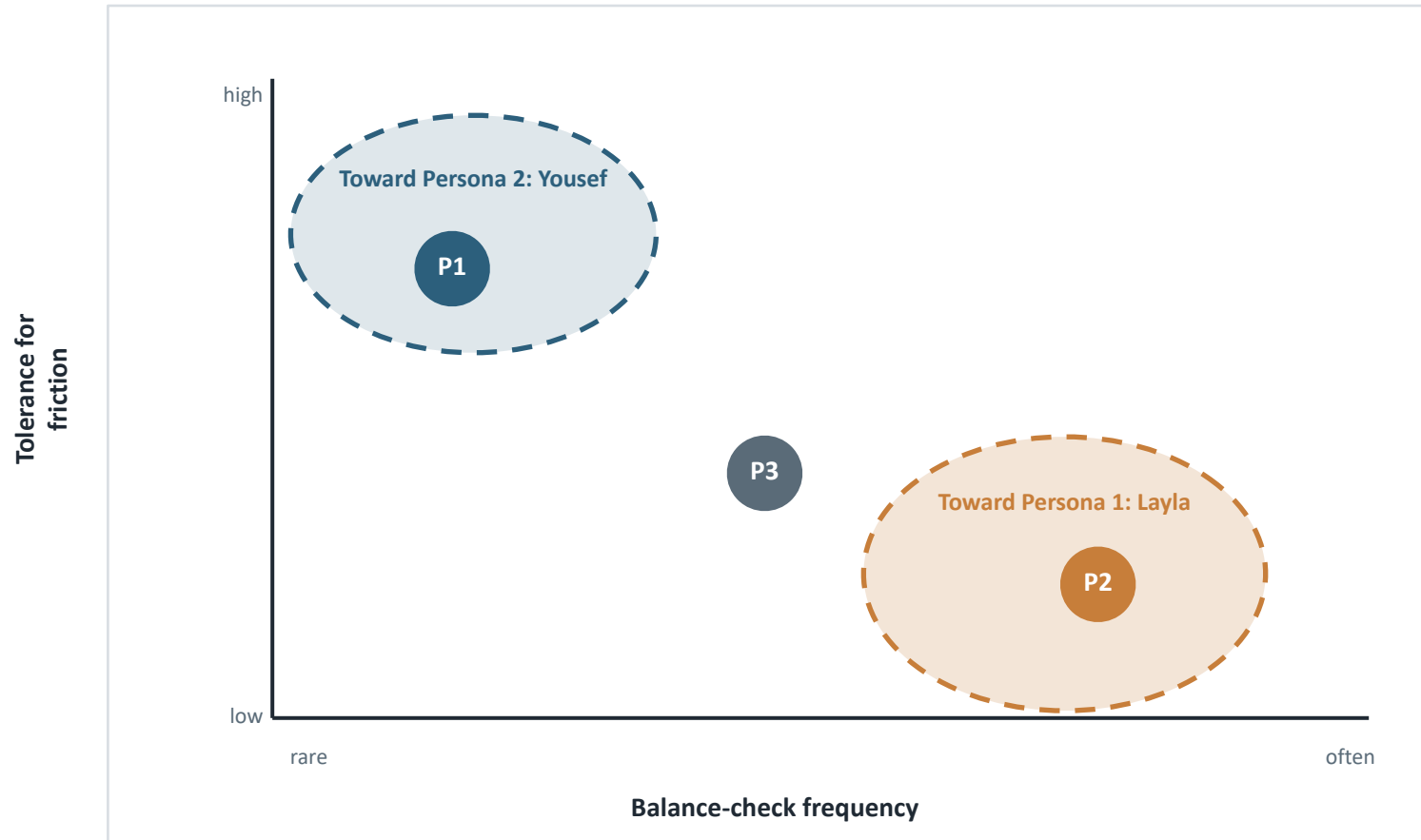
*tech capability*

*Below: how we instantiate them for our banking-app project*

Frequency of balance check	Activities	rarely	obsessively
Tolerance for friction	Attitudes	high (will retry)	low (gives up)
Self-reliance	Attitudes	asks family	does it alone
Channel preference	Activities	branch only	digital only
Transaction size	Activities	small daily	large occasional
Language comfort	Skills	Arabic only	Arabic + English

# Step 4: Map each interviewee on each variable

Look for users who cluster on multiple dimensions



## Reading the plot

- P2: high frequency, low tolerance. Anchors persona Layla.
- P1: rare use, high tolerance. Anchors persona Yousef.
- P3 sits in the middle. With only 3 interviews, treat as outlier.

### Reality of Phase 1:

Clusters get stronger with more interviews. The Phase 1 minimum (2) gives a thin picture; 3 to 4 is the realistic working range. Plot every variable, not just two.

# Clustering: more data, more dimensions

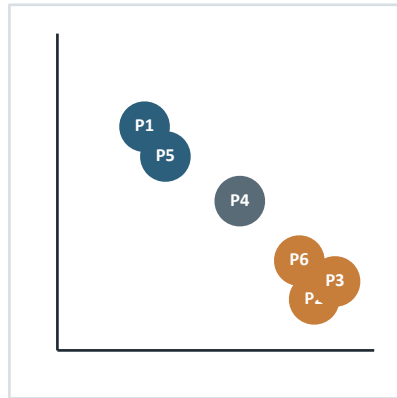
When interview count grows; when variables stack

## As interview count grows



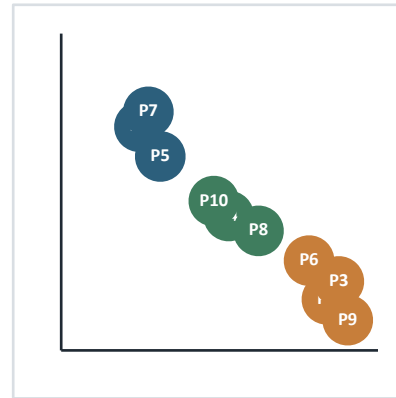
3 interviews

1 persona confident, 1 tentative, 1 outlier



6 interviews

2 personas defensible, 1 outlier



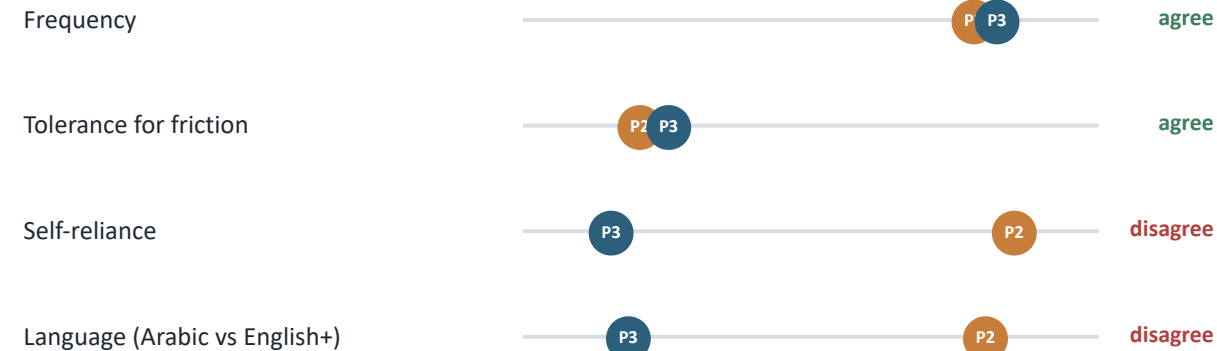
10+ interviews

3 personas, edge cases visible

Frequency on x, tolerance for friction on y in all three plots.

## Why one plot is not enough

Cluster on multiple variables, not just two. Two users can look close on frequency yet split on another variable.



### Reading this:

P2 and P3 share 2 of 4 variables. They are not the same persona. The 2D plot on the left could have grouped them by accident. Rule: cluster on the majority of your variables, not on one or two.

# Step 5: Drafting the persona card

*From cluster to one-pager*

## Inputs from the cluster

- Goals: most common across cluster members
- Frustrations: same
- Tech literacy: cluster's honest level
- Context: where/when/with-whom they share
- Quote: most representative interview line

*Inclusion rule: every line must be supportable by the majority of cluster members. With 3 interviews, that means at least 2 of 3.*

## Surface details (added last)

- Name: real-sounding, respects population
- Photo: stock, illustration, AI-generated, or icon
- Demographics: only if they affect behaviour

## Brief test

*Could a new designer joining the team read this in 5 minutes and know who they are designing for?*

# Step 6: Validate

Two required checks; one professional-practice check

1

## Traceability

Required

Walk through the persona line by line.

**Ask:** *Where does this claim come from?*

**Pass when:** Every line must trace to interview, observation, or document.

2

## Design utility

Required

Generate design implications from the persona.

**Ask:** *Does this persona produce at least 5 concrete decisions?*

**Pass when:** If not, it is too generic. Tighten the variables and re-cluster.

3

## Recognition walk-back

Professional practice

Show the persona to one anonymised interviewee.

**Ask:** *Does this remind you of anyone you know?*

**Pass when:** “This is me, basically” means success. “I do not recognise them” means invented.

# Workshop block (20+ minutes)

*We will build a banking-app persona*

## Working in your project teams

1

Code the snippets - assign 1–3 codes per quote, in a shared spreadsheet/document

2

Cluster - group similar codes; name each cluster

3

Variables & mapping - extract 3–4 behavioural variables; place P1–P3 on each

4

Draft a persona card - name, goals, frustrations, tech, context, quote

5

Share back - cluster names and one evidenced claim per team; critique two as a class

*Source: synthesised from realistic patterns in MENA mobile-banking research and PMA digital-banking reports. Not a transcript of any specific person.*

# The data: three interview snippets

*P1, P2, P3 - your raw material for the workshop*

**P1** *Civil-engineer, 32, Bethlehem*

*“Honestly I open the app maybe twice a month. When the rent is due, I check, I send. I don’t need to look at it more. If something is wrong I just go to the branch on Saturday morning. The OTP arrives sometimes 30 seconds late but I am patient.”*

**P2** *Teacher, 25, Hebron / Ramallah commute*

*“On the 22nd of every month I check four, five times before lunch. The salary should come at noon but it never comes at noon. Sometimes 3pm, sometimes the next day. I am refreshing the screen on the bus. The app logs me out so fast - I open it, type the password, and it asks again.”*

**P3** *Pharmacist, 41, Nablus*

*“My son does the app for me, I tell him the amount and he transfers. By myself I cannot read it well, the Arabic is mixed with English numbers and I get confused which side I am pressing. For my own balance I call the bank or I go in. If I see less than I expected I get nervous, you know how it is right now.”*

# Before “good codes”: how coding goes wrong

*Three failure modes that ruin every cluster downstream*

*“The app logs me out so fast - I open it, type the password, and it asks again.” (P2)*

## 1. Sentence-code

**BAD:** *“she-is-frustrated-because-the-app-logs-her-out-while-she-is-typing-her-password”*

**Why:** A re-statement, not a code. Cannot be grouped with anything.

**GOOD:** **session-too-short; password-friction**

*Noun-phrases, descriptive, groupable.*

## 2. Over-broad

**BAD:** *“user-experience” / “bad-app”*

**Why:** Bucket so wide it groups everything; clusters become meaningless.

**GOOD:** **session-too-short; password-friction**

*Noun-phrases, descriptive, groupable.*

## 3. Interpretation-as-code

**BAD:** *“security-theatre-distrust”*

**Why:** Imports a theory before data supports it. Stay descriptive.

**GOOD:** **session-too-short; password-friction**

*Noun-phrases, descriptive, groupable.*

# Sample coding (compare with yours)

*Compare yours to mine - disagreement is data*

## Codes

**P1**

low-frequency-use; branch-fallback; otp-tolerance; rent-driven-use

**P2**

frequent-balance-check; salary-anxiety; bus-usage; logout-too-fast; salary-day-22

**P3**

delegated-banking; rtl-confusion; phone-call-fallback; balance-anxiety; numbers-mixed-script

*Total codes vary by interviewee. P3 is rich; P1 is sparse. That is normal.*

# Sample clusters

Three clusters from three interviews - weak but workable

## A. High-anxiety frequent users

### Codes

- frequent-balance-check (P2)
- salary-anxiety (P2)
- balance-anxiety (P3)
- salary-day-22 (P2)
- bus-usage (P2)

### Supported by

*P2 (strong), P3 (partial)*

## B. Low-frequency confident users

### Codes

- low-frequency-use (P1)
- branch-fallback (P1)
- otp-tolerance (P1)
- rent-driven-use (P1)

### Supported by

*P1*

## C. Delegated / assisted users

### Codes

- delegated-banking (P3)
- rtl-confusion (P3)
- phone-call-fallback (P3)
- numbers-mixed-script (P3)

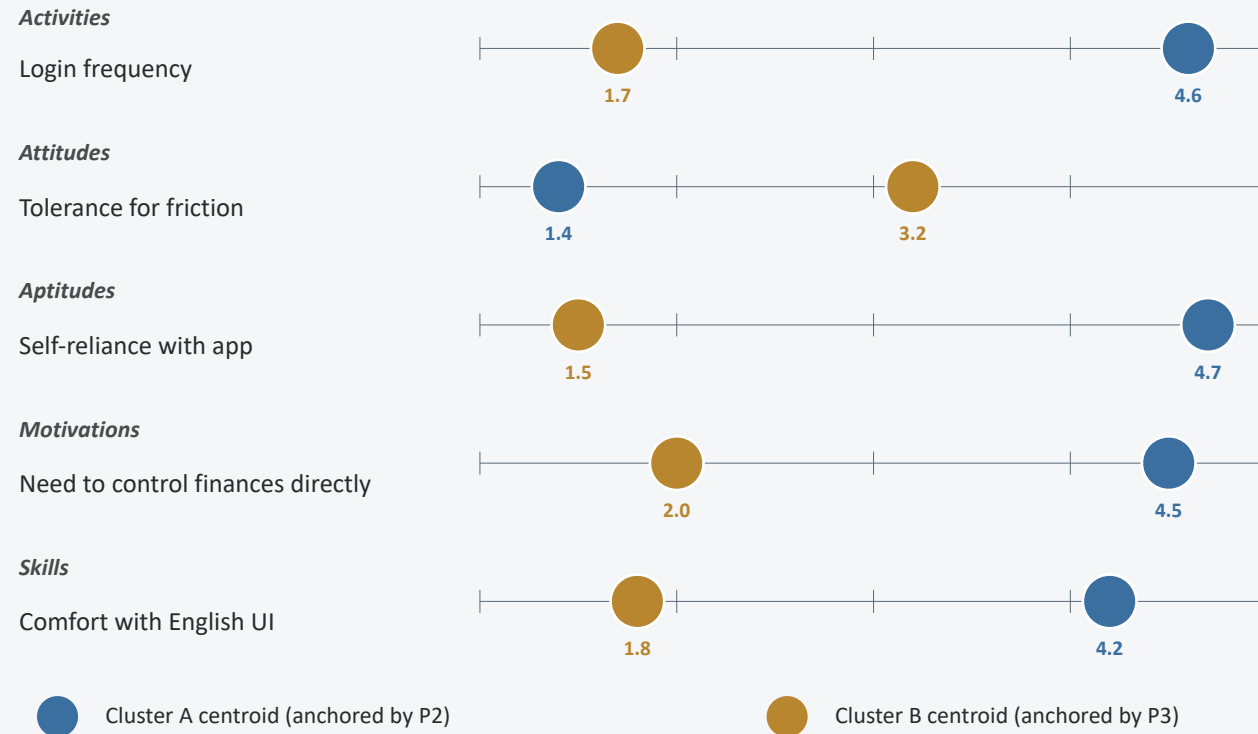
### Supported by

*P3*

# From cluster to persona: the centroid is the profile

Each cluster has a centroid - its average score on every behavioural variable. That profile is what the persona card crystallises into a story.

## Cluster centroids across the five Cooper (2014) types



Scale: 1 (low) to 5 (high)

## Reading the centroid as a persona

### Cluster A becomes Layla

- High frequency + low tolerance
- Logs in daily, expects speed
- High self-reliance + English comfort
- Does not need to ask family for help
- High motivation to control finances directly

### Cluster B becomes Maryam

- Low frequency + higher tolerance
- Uses the app only when she must
- Low self-reliance + low English comfort
- Delegates to a relative when stuck
- Lower motivation: trusts cash and branch

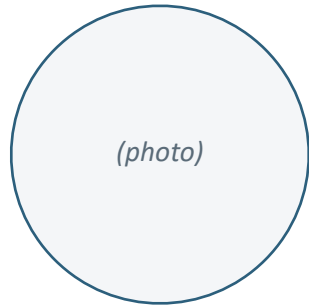
*The card is the centroid, told as a story.*

# A defensible draft from cluster A

*Conservative because we only have 3 interviews*

*Same template as Layla; thinner because our example has only three interviews.*

## MARYAM · Cluster A draft · Banking app



### Maryam K.

Public-sector,  
late 20s to 30s  
Commuter by bus

### Goals

- Confirm salary arrived on payday
- Check balance before spending
- Avoid going to the branch

### Behaviours

- **Heavy use around payday (22nd)**
- Short sessions on the bus

### Frustrations

- Frequent forced logouts mid-task
- No clear salary-arrival indicator
- OTP delays during peak (22nd of month)

### Tech and context

- Mid-range Android, mobile data only
- Comfortable with messaging apps
- Uses on bus, 1 to 3 minute sessions

*“On the 22nd I refresh four, five times before lunch. The salary should come at noon but it never comes at noon.”*

*From P2; supported by P3 reporting similar anxiety on payday.*

# How many personas should you make?

*Two for Phase 1 - one primary, one secondary*

**1**

## Primary

*Who the design fundamentally serves. The persona you optimise for first.*

**2**

## Secondary

*Should not be punished. Their needs are met as a constraint, not the main target.*

**?**

## Anti-persona (optional)

*Who you are NOT designing for. Settles scope arguments fast.*

*For Phase 1: submit one primary + one secondary. State which is which.*

# Anti-pattern 1: The invented persona

*Looks plausible. Constrains nothing. Fails Phase 1.*

## Bad persona

### Sara, 22, university student

Lives in Ramallah. Owns an iPhone.

**Goals:** to be successful in life and use modern technology.

**Frustrations:** slow internet and outdated apps.

**Tech literacy:** high.

*"I like apps that are easy to use."*

## Why it fails

- Goals are universal, not specific
- "Slow internet" applies to everyone
- No frequency, no context, no behaviour
- Quote could be anyone's
- Cannot generate any design decision

**Diagnosis:** *no interviews behind it.*

# Anti-pattern 2: The demographic-only persona

*Reads like a CV. Cannot design from it.*

## Bad persona

### Ahmad Saleh

Age: 28

Gender: Male

Marital status: Married, 2 children

Education: BSc Computer Engineering, Birzeit, 2018

Occupation: Software developer at a Ramallah company

Income: Middle bracket

Hobbies: Football, gaming, reading

Languages: Arabic, English

Devices: iPhone 13, MacBook Air, Apple Watch

Bank: Bank of Palestine

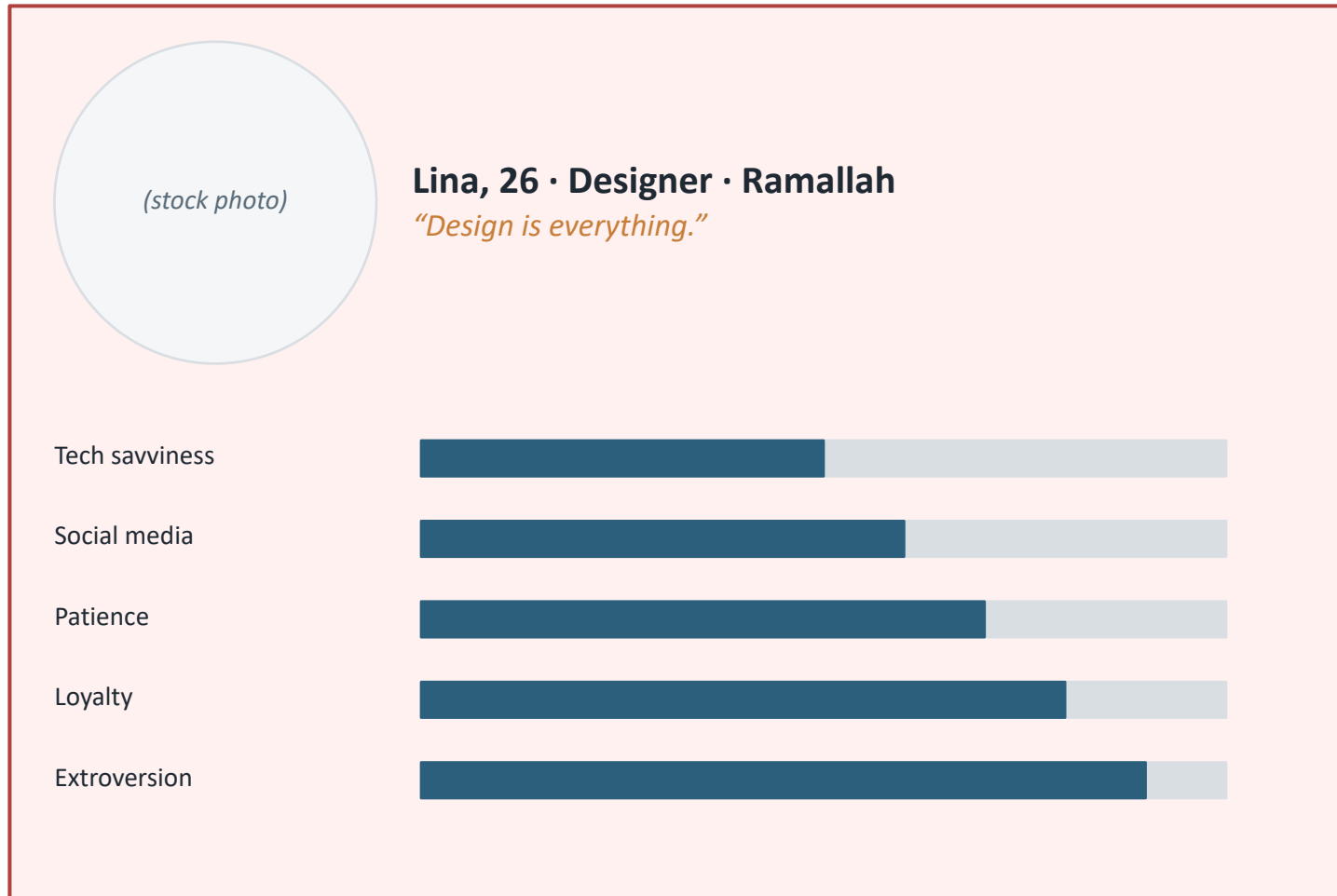
## Why it fails

- All facts, no behaviour
- No goals, no frustrations
- Owning an Apple Watch tells you nothing about how he uses banking
- Hobbies have no design relevance

**Diagnosis:** *this is a user profile, not a persona.*

# Anti-pattern 3: The stock-photo aesthetic

*Beautiful card. Empty content.*



## Why it fails

- Skill bars are made up - what is “70% patience”?
- Personality scales rarely affect design
- Quote is aspirational, not from interview
- Layout effort >> analytical effort

**Diagnosis:** *design fiction.*

# Anti-pattern 4: The stereotyped persona

*Encodes bias. Most harmful of all.*

## Bad persona (stereotype-based)

### Hajja Aisha, 65, grandmother

Lives in a village. Wears a hijab.

**Goals:** to take care of her grandchildren.

**Frustrations:** she does not understand technology and is afraid of the internet.

**Tech literacy:** very low.

**Behaviour:** asks her son for permission before spending money.

*“My son knows everything.”*

## Why it fails (and harms)

- No evidence, just assumptions
- Hijab has no banking-design relevance
- “Son’s permission” imputes a power dynamic
- Will produce designs that exclude older women who do manage their own money

**Diagnosis:** *designer’s bias dressed as user research.*

# One rule that prevents all four anti-patterns

*No source, no claim.*

*Every line on the persona traces to interview data, observation, or document.*

## Cures all four anti-patterns:

- ✓ **Invented** - Forces you to actually do the interviews.
- ✓ **Demographic-only** - Demographics rarely come up in interviews; behaviours do.
- ✓ **Stock-photo aesthetic** - No data means no card. Layout follows analysis, not the other way around.
- ✓ **Stereotyped** - If a claim aligns with a cultural shortcut and has no data, delete it.

# Surface details: photo, quote, tone

*The 10% that signals whether you took the work seriously*

## Photo

### Use:

- AI-generated face
- Illustration / icon
- Free stock (Unsplash, Pexels)

### Avoid:

- Real photos of real people
- Photos of friends as “models”

## Quote

### Good (specific, behavioural):

*“I just want to see if the salary arrived.”*

### Bad (generic, aspirational):

*“Design should be intuitive and modern.”*

*One sentence. Spoken register. From your data.*

## Tone

### Match the user’s register.

If they said:

*“the app is annoying”*

Do not write:

*“the user finds the application suboptimal”*

Bilingual ok: Arabic quote + English translation in brackets.

# Phase 1 personas - submission checklist

*Tick every box before you submit*

- |                          |  |                          |  |
|--------------------------|--|--------------------------|--|
| <input type="checkbox"/> | We have conducted at least 2 interviews (3–4 recommended).         | <input type="checkbox"/> | Each participant signed the Appendix C consent form.   |
| <input type="checkbox"/> | We have coded each transcript within 24 hours.                     | <input type="checkbox"/> | We have clustered codes into 5–10 groups.  |
| <input type="checkbox"/> | We have extracted 5–7 behavioural variables.                       | <input type="checkbox"/> | We have plotted each interviewee on each variable.   |
| <input type="checkbox"/> | Two personas drafted: one primary, one secondary.                  | <input type="checkbox"/> | Each persona has all 8 fields (name, photo, demographics, goals, frustrations, tech literacy, context, quote). |
| <input type="checkbox"/> | Every line of every persona traces to an interview or observation. | <input type="checkbox"/> | Each persona generates at least 5 concrete design implications.  |
| <input type="checkbox"/> | No demographic-only profiles. No stereotypes. No invented details. | <input type="checkbox"/> | Persona card fits on one page each.  |

# Before next session: homework

*Two tasks. Both are inputs to Phase 1 and to next session's scenario work.*

## Task 1: Conduct two+ interviews

Use the Appendix B interview guide. Get signed consent (Appendix C). Record with permission (if possible). Aim for 25-40 minutes per interview.

## Task 2: Code each transcript within 24 hours

30-60 codes per interview, in a shared spreadsheet. Bring them to next session printed or open on your laptop.

**Phase 1 deadline:** Wednesday 20 May. · **Next session:** scenarios - turning your personas into design stories. ·

# Three things to leave the room with

1

**Fictional, evidence-based, archetype.**

*Every line traces to data. No source, no claim.*

2

**Six-step pipeline.**

*Code, cluster, variables, map, draft, validate. Skip nothing.*

3

**Two personas: primary + secondary.**

*Both grounded in your interviews. State which is which.*

*“The persona pins the rubber band down.”*

# Frequently asked

*And then - your questions*



**Only one cluster emerges from our interviews. What now?**

*That is real data. Build one strong primary persona; do not invent a second. Note that more interviews would be needed for a secondary.*



**Can we reuse a persona across projects?**

*No. Personas are project-specific. The Layla who uses a banking app is not the Layla who uses Ritaj.*



**We cannot find interviewees for a niche group.**

*Adjust scope. The interview-able population is part of the design constraint. If you cannot research them, you should not be designing for them in this project.*



**How long does this take in industry?**

*Real project: 4–6 weeks for a full persona set. Phase 1: 1–2 weeks total including interviews.*



**Can ChatGPT just generate the personas for us?**

*It produces what LOOKS like a persona but is, by definition, invented. Violates the data-grounding rule. AI for editing the writing of a data-built persona is fine - and disclose it.*

*Other questions? Drop them in chat, unmute, or come to office hours posted on Ritaj.*

# References (1 of 2)

*Cite at least two of these in your Phase 1 report*

Cooper, A. (1999). *The Inmates Are Running the Asylum: Why High-Tech Products Drive Us Crazy and How to Restore the Sanity*. Sams Publishing.

Cooper, A., Reimann, R., Cronin, D., & Noessel, C. (2014). *About Face: The Essentials of Interaction Design* (4th ed.). Wiley.

Goodwin, K. (2009). *Designing for the Digital Age: How to Create Human-Centered Products and Services*. Wiley.

Pruitt, J., & Adlin, T. (2006). *The Persona Lifecycle: Keeping People in Mind Throughout Product Design*. Morgan Kaufmann.

Rogers, Y., Sharp, H., & Preece, J. (2024). *Interaction Design: Beyond Human-Computer Interaction* (6th ed.). Wiley. (See ch. 11 on Discovering requirements.)

Saldaña, J. (2021). *The Coding Manual for Qualitative Researchers* (4th ed.). Sage.

# References

## *Critical and methodological readings*

Beyer, H., & Holtzblatt, K. (1998). Contextual Design: Defining Customer-Centered Systems. Morgan Kaufmann.

Carroll, J. M. (2000). Making Use: Scenario-Based Design of Human-Computer Interactions. MIT Press.

Marsden, N., & Haag, M. (2016). Stereotypes and politics: Reflections on personas. Proc. CHI 2016, 4017–4031. ACM.

Norman, D. (2014). Words matter. Talk about people: Not customers, not consumers, not users. jnd.org.

Palestine Monetary Authority (2023). Annual Report on Financial Inclusion in Palestine. pma.ps.

Salminen, J., Guan, K., Jung, S., Chowdhury, S. A., & Jansen, B. J. (2020). A literature review of quantitative persona creation. Proc. CHI 2020. ACM.

# Thank you

*Bring two coded interviews to the next session.*