

KK15 — Characteristics of user experience (UX) and how these affect software design

Analysis & Design · Comprehensive exam study guide

STUDY DESIGN — YOU MUST KNOW

- affordance
- interoperability
- security (authentication and data protection)
- usability

UX is how a user feels using the solution. Know the four listed characteristics and how each shapes design — affordance and usability are commonly tested.

The four UX characteristics

Characteristic	Meaning	Design impact
Affordance	A control's appearance suggests how to use it.	A button looks clickable; a slider looks draggable.
Interoperability	The solution works with other systems/devices.	Exports standard formats; runs across platforms.
Security	Protecting access and data (authentication & data protection).	Login/authentication; encrypted data.
Usability	How easy and satisfying the solution is to use.	Clear layout, simple navigation, helpful feedback.

Key definitions to memorise

Affordance	A design quality where an element's appearance suggests how it is to be used.
Interoperability	The ability of a solution to work with other systems, devices or data formats.
Usability	How easy, efficient and satisfying a solution is for users to operate.

Exam technique

EXAM TIP

- Define affordance with an example (a raised button looks pressable).
- Security as a UX trait covers authentication AND data protection — mention both.

COMMON MISTAKES

- Confusing affordance (suggests use) with usability (ease of use overall).
- Treating interoperability as just 'works on the internet' — it means working with other systems/formats.

Quick revision checklist

- I can define the four UX characteristics with examples.
- I can explain how each affects design decisions.

Exam practice — questions & model answers

Q1. Define affordance and give an example.

Define · 2 marks

Model answer

- Affordance is where an element's appearance suggests how to use it (1),
- e.g. a raised, shaded button looks clickable (1).

Q2. Explain how usability could be improved in a form that users find confusing.

Explain · 2 marks

Model answer

- Improve usability by simplifying layout, grouping related fields and adding clear labels/feedback (1),
- so users can complete the form quickly with fewer errors (1).