

KK08 — Ethical issues that arise when developing software

Cyber Security · Comprehensive exam study guide

STUDY DESIGN — YOU MUST KNOW

- ineffective security practices
- use of artificial intelligence during development
- intellectual property
- copyright issues

Ethics concerns what developers **should** do, beyond legal minimums. Know each issue and why it raises an ethical concern — often examined as a short explain question.

The four issues

Issue	Ethical concern
Ineffective security practices	Failing to protect users' data adequately can harm people, even if not strictly illegal — developers have a duty of care.
Use of AI during development	AI may introduce bias, errors or expose private data; relying on it without understanding/checking is irresponsible.
Intellectual property (IP)	Using others' ideas/designs/data without permission or credit is unethical (and may be illegal).
Copyright	Copying others' code/content without authorisation breaches their rights.

Ethical vs legal

REMEMBER

Something can be **legal but unethical** (e.g. collecting more data than needed) or **illegal**. Ethics asks what is right; law sets the minimum standard.

Key definitions to memorise

Ethics	Principles of right and wrong conduct that guide what developers should do, beyond legal requirements.
Intellectual property	Creations of the mind (ideas, designs, code) that belong to their creator.

Exam technique

EXAM TIP

- For each issue, state the concern AND who is affected (users, creators).
- Distinguish ethical (should) from legal (must) where relevant.

COMMON MISTAKES

- Treating ethics and law as identical.
- Listing issues without explaining the ethical concern.

Quick revision checklist

- I can describe the four ethical issues and the concern each raises.
- I can distinguish ethical from legal considerations.

Exam practice — questions & model answers

Q1. Explain why using AI during development raises an ethical issue.

Explain · 2 marks

Model answer

- AI output can contain bias or errors and may expose private data entered in prompts (1),
- so relying on it without checking or understanding it can harm users and misrepresent the developer's own work (1).

Q2. Distinguish between an ethical and a legal issue in software development.

Distinguish · 2 marks

Model answer

- A legal issue concerns complying with the law, with legal consequences (1);
- an ethical issue concerns what is right/responsible, which may go beyond the legal minimum (1).