Practical Application of Threat Modelling:

This module helped to apply threat modelling using OWASP and frameworks to simulate security scenarios.

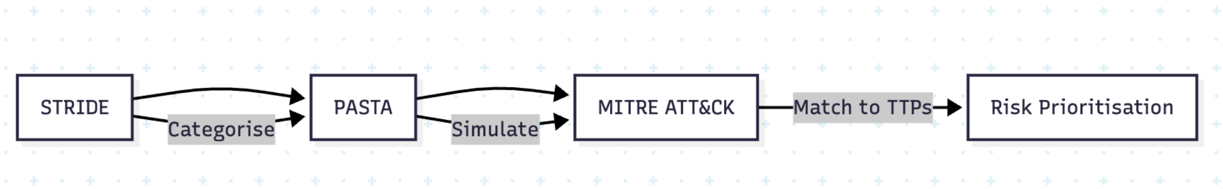
Tools & Frameworks:

- OWASP Threat Modelling
- MITRE ATT&CK Framework
- STRIDE (categorisation)
- PASTA (risk-centric simulation)

Learning Outcomes:

I learnt to select frameworks based on scenarios such as OWASP and MITRE ATT&CK to simulate attacker behaviour. Hybrid models (STRIDE, PASTA and ATT&CK) suit complex environments like IoT. A case study (Jbair et al., 2022) helped model cyber-physical systems and prioritise mitigation using CVSS.

Figure 3: Threat Modelling Workflow



References:

Jbair, M., Alenezi, A., Alshammari, A. and Alazab, M. (2022) *‘Threat modelling for industrial cyber-physical systems in smart manufacturing’*, *Computers in Industry*, 137, p.103611.

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OWASP (2021) *Threat Modelling Cookbook.* Open Worldwide Application Security Project.

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