**OWASP Snakes and Ladders**

**Web Applications**

Snakes and Ladders is an educational application security awareness game. This version is all about web applications, with the OWASP Top Ten Proactive Controls as ladders, and the well-known OWASP Top Ten Critical Risks as snakes.

Thank you to the leaders and other contributors of these two projects.

**OWASP Top Ten Proactive Controls (v3 2018)**

- OWASP-C1 Define Security Requirements
- OWASP-C2 Leverage Security Frameworks and Libraries
- OWASP-C3 Secure Database Access
- OWASP-C4 Leverage Security Libraries
- OWASP-C5 Validate All Inputs
- OWASP-C6 Use Known Vulnerability Exposures
- OWASP-C7 Secure Every Database Access
- OWASP-C8 Protect Data Everywhere
- OWASP-C9 Implement Security Logging and Monitoring
- OWASP-C10 Handle All Errors and Exceptions

**OWASP Top Ten Risks (2017)**

- OWASP-A1 Injection
- OWASP-A2 Broken Authentication
- OWASP-A3 Cross-Site Scripting (XSS)
- OWASP-A4 XML External Entities (XXE)
- OWASP-A5 Broken Access Control
- OWASP-A6 Security Misconfiguration
- OWASP-A7 Cross-Site Request Forgery (CSRF)
- OWASP-A8 Sensitive Information Exposure
- OWASP-A9 Using Components with Known Vulnerabilities
- OWASP-A10 Broken Access Control

**Background**

Snakes and Ladders is a popular board game, imported into Great Britain by the Victorians based on a game from Asia. The original game showed the effects of good and evil, or virtue and vice. The game is known as Chutes and Ladders in some parts of the Americas. In this OWASP version, the virtuous behaviors are secure coding practices (the proactive controls) and the vices are application security risks.

**Rules**

The game is for 2-6 players. Give each player a coloured counter ( marca); to begin, each player should throw the die to determine who plays first; the highest can lead. Put all the player’s counters into the first square labelled “Start”. In turns, each player rolls the die and moves their counter by the number of squares indicated on the die. At the end of the move, if a player’s counter is at the bottom end of a ladder, the counter must be moved up to the square at its higher end. Conversely, if the player’s counter is located at the mouth of a snake, the counter must be moved down to the end of the snake’s tail.

The first player to reach “100” at the top left wins.

**Notice**

- No die or counters? Cut the shapes out below use the coloured circles as counters for each player. Alternatively write a computer program to simulate a six-sided die, or use a random number generator app on your phone or computer to create integers between 1 and 6. Check how random it is thought!

- To make a die after carefully cutting it out from this sheet, fold along the dotted lines, put glue on the tabs, and then fold it up carefully into a cube.

- There should be seven counters, but a greedy snake has eaten one. Can you spot it?