1. What is your current occupation? *

   Mark only one oval.

   ○ Industrial or freelance professional

   ○ Academic or industrial researcher

   ○ Undergraduate/graduate student

   ○ Other: _____

2. Which of the following best describes your primary job role? *

   Mark only one oval.

   ○ Development

   ○ Testing

   ○ Project Management

   ○ Other: _____

3. How many years of experience do you have with your primary job role? (Please input a number, decimals okay) *

   _____

4. Current country/area of residence? *

Mark only one oval.

○ Afghanistan (AFG)

○ Albania (ALB)

○ Algeria (DZA)

○ American Samoa (ASM)

○ Andorra (AND)

○ Angola (AGO)

○ Anguilla (AIA)

○ Antigua and Barbuda (ATG)

○ Argentina (ARG)

○ Armenia (ARM)

○ Aruba (ABW)

○ Australia (AUS)

○ Austria (AUT)

○ Azerbaijan (AZE)

○ Bahamas, The (BHM)

○ Bahrain (BHR)

○ Bangladesh (BGD)

○ Barbados (BRB)

○ Belarus (BLR)

○ Belgium (BEL)

○ Belize (BLZ)

○ Benin (BEN)

○ Bermuda (BMU)

○ Bhutan (BTN)

○ Bolivia (BOL)

○ Bosnia and Herzegovina (BIH)

○ Botswana (BWA)

○ Brazil (BRA)

○ British Virgin Islands (VGB)

○ Brunei (BRN)

○ Bulgaria (BGR)

○ Burkina Faso (BFA)

- ( ) Burma (MMR)
- ( ) Burundi (BDI)
- ( ) Cabo Verde (CPV)
- ( ) Cambodia (KHM)
- ( ) Cameroon (CMR)
- ( ) Canada (CAN)
- ( ) Cayman Islands (CYM)
- ( ) Central African Republic (CAF)
- ( ) Chad (TCD)
- ( ) Chile (CHL)
- ( ) China (CHN)
- ( ) Colombia (COL)
- ( ) Comoros (COM)
- ( ) Congo, Democratic Republic of the (COD)
- ( ) Congo, Republic of the (COG)
- ( ) Cook Islands (COK)
- ( ) Costa Rica (CRI)
- ( ) Cote d'Ivoire (CIV)
- ( ) Croatia (HRV)
- ( ) Cuba (CUB)
- ( ) Curacao (CUW)
- ( ) Cyprus (CYP)
- ( ) Czech Republic (CZE)
- ( ) Denmark (DNK)
- ( ) Djibouti (DJI)
- ( ) Dominica (DMA)
- ( ) Dominican Republic (DOM)
- ( ) Ecuador (ECU)
- ( ) Egypt (EGY)
- ( ) El Salvador (SLV)
- ( ) Equatorial Guinea (GNQ)
- ( ) Eritrea (ERI)
- ( ) Estonia (EST)
- ( ) Ethiopia (ETH)
- ( ) Falkland Islands (Islas Malvinas) (FLK)

- ( ) Faroe Islands (FRO)
- ( ) Fiji (FJI)
- ( ) Finland (FIN)
- ( ) France (FRA)
- ( ) French Polynesia (PYF)
- ( ) Gabon (GAB)
- ( ) Gambia, The (GMB)
- ( ) Georgia (GEO)
- ( ) Germany (DEU)
- ( ) Ghana (GHA)
- ( ) Gibraltar (GIB)
- ( ) Greece (GRC)
- ( ) Greenland (GRL)
- ( ) Grenada (GRD)
- ( ) Guam (GUM)
- ( ) Guatemala (GTM)
- ( ) Guernsey (GGY)
- ( ) Guinea-Bissau (GNB)
- ( ) Guinea (GIN)
- ( ) Guyana (GUY)
- ( ) Haiti (HTI)
- ( ) Honduras (HND)
- ( ) Hong Kong (HKG)
- ( ) Hungary (HUN)
- ( ) Iceland (ISL)
- ( ) India (IND)
- ( ) Indonesia (IDN)
- ( ) Iran (IRN)
- ( ) Iraq (IRQ)
- ( ) Ireland (IRL)
- ( ) Isle of Man (IMN)
- ( ) Israel (ISR)
- ( ) Italy (ITA)
- ( ) Jamaica (JAM)
- ( ) Japan (JPN)

- Jersey (JEY)
- Jordan (JOR)
- Kazakhstan (KAZ)
- Kenya (KEN)
- Kiribati (KIR)
- Korea, North (PRK)
- Korea, South (KOR)
- Kosovo (KSV)
- Kuwait (KWT)
- Kyrgyzstan (KGZ)
- Laos (LAO)
- Latvia (LVA)
- Lebanon (LBN)
- Lesotho (LSO)
- Liberia (LBR)
- Libya (LBY)
- Liechtenstein (LIE)
- Lithuania (LTU)
- Luxembourg (LUX)
- Macau (MAC)
- Macedonia (MKD)
- Madagascar (MDG)
- Malawi (MWI)
- Malaysia (MYS)
- Maldives (MDV)
- Mali (MLI)
- Malta (MLT)
- Marshall Islands (MHL)
- Mauritania (MRT)
- Mauritius (MUS)
- Mexico (MEX)
- Micronesia, Federated States of (FSM)
- Moldova (MDA)
- Monaco (MCO)
- Mongolia (MNG)

- ( ) Montenegro (MNE)
- ( ) Morocco (MAR)
- ( ) Mozambique (MOZ)
- ( ) Namibia (NAM)
- ( ) Nepal (NPL)
- ( ) Netherlands (NLD)
- ( ) New Caledonia (NCL)
- ( ) New Zealand (NZL)
- ( ) Nicaragua (NIC)
- ( ) Nigeria (NGA)
- ( ) Niger (NER)
- ( ) Niue (NIU)
- ( ) Northern Mariana Islands (MNP)
- ( ) Norway (NOR)
- ( ) Oman (OMN)
- ( ) Pakistan (PAK)
- ( ) Palau (PLW)
- ( ) Panama (PAN)
- ( ) Papua New Guinea (PNG)
- ( ) Paraguay (PRY)
- ( ) Peru (PER)
- ( ) Philippines (PHL)
- ( ) Poland (POL)
- ( ) Portugal (PRT)
- ( ) Puerto Rico (PRI)
- ( ) Qatar (QAT)
- ( ) Romania (ROU)
- ( ) Russia (RUS)
- ( ) Rwanda (RWA)
- ( ) Saint Kitts and Nevis (KNA)
- ( ) Saint Lucia (LCA)
- ( ) Saint Martin (MAF)
- ( ) Saint Pierre and Miquelon (SPM)
- ( ) Saint Vincent and the Grenadines (VCT)
- ( ) Samoa (WSM)

- San Marino (SMR)
- Sao Tome and Principe (STP)
- Saudi Arabia (SAU)
- Senegal (SEN)
- Serbia (SRB)
- Seychelles (SYC)
- Sierra Leone (SLE)
- Singapore (SGP)
- Sint Maarten (SXM)
- Slovakia (SVK)
- Slovenia (SVN)
- Solomon Islands (SLB)
- Somalia (SOM)
- South Africa (ZAF)
- South Sudan (SSD)
- Spain (ESP)
- Sri Lanka (LKA)
- Sudan (SDN)
- Suriname (SUR)
- Swaziland (SWZ)
- Sweden (SWE)
- Switzerland (CHE)
- Syria (SYR)
- Taiwan (TWN)
- Tajikistan (TJK)
- Tanzania (TZA)
- Thailand (THA)
- Timor-Leste (TLS)
- Togo (TGO)
- Tonga (TON)
- Trinidad and Tobago (TTO)
- Tunisia (TUN)
- Turkey (TUR)
- Turkmenistan (TKM)
- Tuvalu (TUV)

○ Uganda (UGA)

○ Ukraine (UKR)

○ United Arab Emirates (ARE)

○ United Kingdom (GBR)

○ United States (USA)

○ Uruguay (URY)

○ Uzbekistan (UZB)

○ Vanuatu (VUT)

○ Venezuela (VEN)

○ Vietnam (VNM)

○ Virgin Islands (VGB)

○ West Bank (WBG)

○ Yemen (YEM)

○ Zambia (ZMB)

○ Zimbabwe (ZWE)

5. About your current project: How many people are involved in your team? *

Mark only one oval.

○ 1-5

○ 6-10

○ 11-20

○ 21-40

○ Other: _____

6. Your primary programming language? *

Mark only one oval.

- ◯ C/C++
- ◯ C#
- ◯ Go
- ◯ Java
- ◯ JavaScript
- ◯ Kotlin
- ◯ Objective-C
- ◯ Perl
- ◯ PHP
- ◯ Python
- ◯ R
- ◯ Ruby
- ◯ Rust
- ◯ Scala
- ◯ SQL
- ◯ Swift
- ◯ TypeScript
- ◯ Visual Basic
- ◯ Other: _____

7. How knowledgeable are you about information security? *

Mark only one oval.

- ◯ Not at all
- ◯ Slightly
- ◯ Moderately
- ◯ Very
- ◯ Extremely

8. Do you have experience with smart contracts? *

   Mark only one oval.

   ◯ Yes

   ◯ No

   Smart Contract Specific Experience

9. For about how many years have you been developing smart contracts? (Please input a number, decimals okay) *

   _____

10. What best describes the primary blockchain platform you currently work on? *

    Mark only one oval.

    ◯ Public blockchain

    ◯ Consortium blockchain

    ◯ Private blockchain

    ◯ Other: _____

11. What best describes the blockchains you currently work on? (Please select all that apply) *

    Tick all that apply.

    ☐ Aeternity

    ☐ Bitcoin

    ☐ Ethereum

    ☐ EOS

    ☐ Hyperledger Fabric

    ☐ RSK

    ☐ Stellar

    ☐ Tezos

    ☐ Waves

    Other: ☐ _____

12. What are the programming languages that you used for developing smart contracts? (Please select all that apply) *

Tick all that apply.

☐ C++
☐ Go
☐ Solidity
☐ Java
☐ JavaScript
☐ LLL
☐ Mutan
☐ Serpent
☐ Vyper
Other: ☐ _____

13. How important is each of the following factors for your smart contracts? *

Mark only one oval per row.

	Not at all	Slightly	Moderately	Very	Extremely	I don't know
Supporting many features	◯	◯	◯	◯	◯	◯
Securing against malicious attacks	◯	◯	◯	◯	◯	◯
Protecting privacy	◯	◯	◯	◯	◯	◯
Costing less gas	◯	◯	◯	◯	◯	◯
Avoiding bugs	◯	◯	◯	◯	◯	◯
Easy to use	◯	◯	◯	◯	◯	◯

14. About your team: Primary life cycle model? *

Mark only one oval.

- ( ) Waterfall
- ( ) Iterative
- ( ) Agile
- ( ) Other: _____

15. How often does your team release a new version of smart contracts over the past two years? *

Mark only one oval.

- ( ) Never
- ( ) Annually
- ( ) Quarterly
- ( ) Monthly
- ( ) Weekly
- ( ) Daily

Smart Contract: Security Awareness

16. Have you ever experienced a security issue with the smart contracts your team has developed? (Please select all that apply) *

Tick all that apply.

- [ ] Yes, we experienced a security breach.
- [ ] Yes, a vulnerability in shipped code was discovered.
- [ ] Yes, a vulnerability in unshipped code was discovered.
- [ ] No, we have never experienced a security issue.
- [ ] I don't know or prefer not to answer.
- Other: [ ] _____

17. Which resources do you use to gain security knowledge for smart contracts? (Please select all that apply) *

Tick all that apply.

- [ ] Research Papers
- [ ] Official Forums of Blockchain Platforms
- [ ] Latest News (e.g., coindesk)
- [ ] Question and Answer Websites (e.g., Stack Overflow)
- [ ] Blockchain Security Companies (e.g., OpenZeppelin)

Other: [ ] _____

Please kindly rate each statement, with respect to your experience with the primary blockchain you specified above.

18. I care about smart contract security because: *

Mark only one oval per row.

	Strong Disagree	Disagree	Neutral	Agree	Strongly Agree	I don't know.
Software security is in my company's culture.	◯	◯	◯	◯	◯	◯
My company mandates security practices in smart contract development.	◯	◯	◯	◯	◯	◯
My company is audited for smart contract security by an external entity.	◯	◯	◯	◯	◯	◯
My company would lose customers in case of a security breach.	◯	◯	◯	◯	◯	◯
Security breaches would hurt my company's reputation.	◯	◯	◯	◯	◯	◯
Software security is a shared responsibility by all those involved in the development lifecycle.	◯	◯	◯	◯	◯	◯
I see software security as my responsibility.	◯	◯	◯	◯	◯	◯
I care about my users' experience in security and privacy.	◯	◯	◯	◯	◯	◯
Customers would lose money in case of a security breach.	◯	◯	◯	◯	◯	◯
The deployed smart contracts are immutable.	◯	◯	◯	◯	◯	◯
It is challenging to detect and trace	◯	◯	◯	◯	◯	◯

attacks on smart
contracts deployed to
blockchains.

19. Do you agree with each of the following statements? *

Mark only one oval per row.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	I don't know.
The smart contracts I develop are not prone to security attacks.	◯	◯	◯	◯	◯	◯
Smart contract security is not my responsibility.	◯	◯	◯	◯	◯	◯
Smart contract security is a burden on top of my main responsibilities.	◯	◯	◯	◯	◯	◯
In my team, it is more important to deliver features on time than to address smart contract security.	◯	◯	◯	◯	◯	◯
My team does not have the budget to address smart contract security.	◯	◯	◯	◯	◯	◯
My company does not have a formal process for smart contract security.	◯	◯	◯	◯	◯	◯
It is unlikely that our smart contract will be attacked.	◯	◯	◯	◯	◯	◯
It is easy to mitigate the negative impact of a security breach.	◯	◯	◯	◯	◯	◯
Available security tools for smart contracts are not useful.	◯	◯	◯	◯	◯	◯

20. Why do you or don't you think security is important to smart contracts? (Optional)

_____

_____

_____

_____

_____

Smart Contract: Security Practices

21. As a percentage, how much of your team's overall effort in the development life cycle relates to *security tasks*? (Please input a number between 0-100) *

_____

22. How does your team consider security among the following stages? *

Mark only one oval per row.

	Not at all	Slightly	Moderately	Very	Extremely	I don't know.
Requirement	⬭	⬭	⬭	⬭	⬭	⬭
Design	⬭	⬭	⬭	⬭	⬭	⬭
Construction	⬭	⬭	⬭	⬭	⬭	⬭
Testing	⬭	⬭	⬭	⬭	⬭	⬭
Deployment	⬭	⬭	⬭	⬭	⬭	⬭
Maintenance	⬭	⬭	⬭	⬭	⬭	⬭

23. Has the development of your smart contracts ever got support from security experts? *

Mark only one oval.

◯ Yes

◯ No

◯ I don't know.

24. How frequently does your team use each of the following strategies to identify security problems in smart contracts? *

Mark only one oval per row.

	Very Rarely	Rarely	Sometimes	Often	Very Often	I don't know.
Threat assessment	◯	◯	◯	◯	◯	◯
Code style checking	◯	◯	◯	◯	◯	◯
Code review	◯	◯	◯	◯	◯	◯
Static analysis (Use an automated tool)	◯	◯	◯	◯	◯	◯
Formal verification	◯	◯	◯	◯	◯	◯
Vulnerability scan (Use an automated scanner)	◯	◯	◯	◯	◯	◯
Fuzzing	◯	◯	◯	◯	◯	◯
Security testing (Within organization)	◯	◯	◯	◯	◯	◯
External auditing	◯	◯	◯	◯	◯	◯
Runtime monitoring	◯	◯	◯	◯	◯	◯
Code reuse from reliable sources (e.g., OpenZeppelin')	◯	◯	◯	◯	◯	◯

25. What other strategies (if any) does your team use to ensure smart contract
    security? (Optional)

    _____

    _____

    _____

    _____

    _____

26. How frequently does your team use each of the following techniques to ensure
    the security and privacy of smart contracts? *

    Mark only one oval per row.

	Very Rarely	Rarely	Sometimes	Often	Very Often	I don't know.
Input validation	◯	◯	◯	◯	◯	◯
Bytecode hardening	◯	◯	◯	◯	◯	◯
Access control enforcement	◯	◯	◯	◯	◯	◯
Avoid improper use of functions (e.g., DelegateCall())	◯	◯	◯	◯	◯	◯

27. What other techniques (if any) does your team use to ensure smart contract
    security? (Optional)

    _____

    _____

    _____

    _____

    _____

Smart Contract: Security Tools

28. How frequently does your team use each of the following tools to ensure the security and privacy of smart contracts? *

Mark only one oval per row.

	Very Rarely	Rarely	Sometimes	Often	Very Often	I don't know.
Formal verification tool (e.g., Boogie)	○	○	○	○	○	○
Fuzzer (e.g., ILF and Echidna)	○	○	○	○	○	○
Reverse engineering tool	○	○	○	○	○	○
Security plugin in IDE (e.g., Remix)	○	○	○	○	○	○
Mythril	○	○	○	○	○	○
Oyente	○	○	○	○	○	○
SmartCheck	○	○	○	○	○	○
Slither	○	○	○	○	○	○

29. What other tools (if any) does your team use to ensure smart contract security? (Optional)

_____

30. What are the limitations of security tools for smart contracts that you are aware of? (Optional)

_____

_____

_____

_____

_____

31. I would use a tool to ensure smart contract security because: *

Mark only one oval per row.

	Strong Disagree	Disagree	Neutral	Agree	Strongly Agree	I don't know.
The tool runs fast.	⬭	⬭	⬭	⬭	⬭	⬭
The tool is extensible.	⬭	⬭	⬭	⬭	⬭	⬭
The tool is easy to use.	⬭	⬭	⬭	⬭	⬭	⬭
The tool is highly automated.	⬭	⬭	⬭	⬭	⬭	⬭
The tool is actively maintained.	⬭	⬭	⬭	⬭	⬭	⬭
The tool does not cost much money.	⬭	⬭	⬭	⬭	⬭	⬭
The tool supports multiple languages.	⬭	⬭	⬭	⬭	⬭	⬭
The tool produces low false positives.	⬭	⬭	⬭	⬭	⬭	⬭
The tool produces low false negatives.	⬭	⬭	⬭	⬭	⬭	⬭
The tool covers a wide range of security issues.	⬭	⬭	⬭	⬭	⬭	⬭
The tool generates understandable reports.	⬭	⬭	⬭	⬭	⬭	⬭

32. Could you please brainstorm an ideal tool for ensuring smart contract security? It can be as fancy as whatever you can think of. (Optional)

_____

_____

_____

_____

_____