Institutional Review Board

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CONSENT TO PARTICIPATE

Project Title	*Competing to build secure systems.*
Purpose of the Study	*This research is being conducted by Michael Hicks at the University of Maryland, College Park. We are inviting you to participate in this research project because you are taking a class related to information security, or because you have requested to participate in our contest. The purpose of this research project is to gain greater insight into both practice and pedagogy of building secure systems .*
Procedures	*The rules of the contest are detailed elsewhere. In brief: to participate you must be a member of a team. Your team either builds a system according to a specification provided at the start of the contest, or attempts to find defects and vulnerabilities in systems built by other teams, or both. We refer to the former role as the builder role and the latter role as the breaker role. To compete in the contest, builder teams must: (1) write software that implements the system prescribed by the contest, and (2) attempt to fix any problems found by breaker teams, within the provided deadlines. Breaker teams will try to find as many flaws as possible in builder teams' code. The contest is carried out online and will take place over several weeks.* *During the contest we will collect several kinds of data for research purposes. Executable code/test cases: You must create a git code repository for your team to use and provide us access to this repository. Each time you push something to this repository (code, test case, bugfix, etc.) it may be used for later analysis. Official submissions will be accepted by customized contest software. For builders, this software will confirm your code builds and passes canned correctness and performance tests. Only the final submission will be considered when judging contest results.* *At various points during the contest, you may receive email invitations to answer survey questions about your experience. We will also collect limited demographic information from each individual participant. You will create a pseudonym that is stored on our servers. This pseudonym will identify you (and indicate you are part of a particular team) when you respond to surveys or submit code/test cases. The mapping from pseudonym to real name will not be used during data analysis.*
Potential Risks and	*There is a risk that data we collect could be exposed if our servers*

Discomforts	are breached. We minimize this risk using standard data-protection practices. Otherwise, there are no risks greater than ordinarily encountered using a computer and an internet connection.
Potential Benefits	The benefits to you include gaining experience in the development of software, in analyzing software developed by others, and in fixing your own bugs. Participants may opt to share their CV with companies who sponsor the contest in order to receive information about potential job opportunities*.* We hope that, in the future, other people might benefit from this study through improved understanding of how to most effectively develop secure, correct, and efficient systems.
Confidentiality	Any potential loss of confidentiality will be minimized by keeping all data in a secure, dedicated server with a firewall and with access limited to contest organizers. If we write a report or article about this research project, your identity will be protected to the maximum extent possible. Contest winners' names and affiliations may be announced, but individual winners' requests to be anonymized will be honored. Your information may be shared with representatives of the University of Maryland, College Park or governmental authorities if you or someone else is in danger or if we are required to do so by law.
Compensation **[*If Necessary]**	You will receive no direct compensation for participating in the study, but you may have the opportunity to win prizes based on your performance in each role, where the scoring and prize specifics are determined by the contest rules published (elsewhere) in advance. You will be responsible for any taxes assessed on prizes you receive. The University of Maryland, College Park, will distribute the prize money. If you will earn $100 or more in prize money, you must provide your name, address and SSN to receive prize money. If you do not earn over $100 only your name and address will be collected to receive prize money.
Right to Withdraw and Questions	Your participation in this research is completely voluntary. You may choose not to take part at all. If you decide to participate in this research, you may stop participating at any time. If this contest is being offered to you as part of a class project, participating or not participating in this research will have no effect on your grade or standing in the associated class. If you decide not to participate in this study or if you stop participating at any time, you will not be penalized or lose any benefits to which you otherwise qualify, except that you will lose

	eligibility for any prizes or other benefits associated with participating in the research. This will not affect your course grade or standing.
	If you decide to stop taking part in the study, if you have questions, concerns, or complaints, or if you need to report an injury related to the research, please contact the investigator:
	Professor Michael Hicks **Department of Computer Science** **University of Maryland College Park** **College Park, MD 20742** **Email: mwh@cs.umd.edu** **Telephone: (301) 405-2710**
Participant Rights	*If you have questions about your rights as a research participant or wish to report a research-related injury, please contact:* University of Maryland College Park Institutional Review Board Office 1204 Marie Mount Hall College Park, Maryland, 20742 E-mail: irb@umd.edu Telephone: 301-405-0678 *This research has been reviewed according to the University of Maryland, College Park IRB procedures for research involving human subjects.*
Statement of Consent	*By checking the consent box on the registration page, you indicate that you are at least 18 years of age; you have read this consent form or have had it read to you; your questions have been answered to your satisfaction and you voluntarily agree to participate in this research study. You should download a copy of this consent form for your records.*