Dublin City University
RESEARCH ETHICS COMMITTEE

APPLICATION FOR APPROVAL OF A PROJECT
INVOLVING **HUMAN PARTICIPANTS**

Application No. *(office use only)*   DCUREC/2018/____

Please read the following information carefully before completing your application. Failure to adhere to these guidelines will make your submission ineligible for review.

>   **Applications must be e-mailed to the DCU Research Ethics Committee at rec@dcu.ie** –no hardcopy required**.**
>
>   **Student applicants must cc their supervisor on that e-mail** – this applies to all masters by research and PhD students. The form should be checked, approved and signed by the supervisor in advance of submission to REC. *NB – Taught Masters and Undergraduate students apply for ethical review via their local review panels, not via REC.*
>
>   **The application should consist of <u>one electronic file only,</u>** with an electronic signature from the PI. The completed application must incorporate all supplementary documentation, especially that being given to the proposed participants. It must be proofread and spellchecked before submission to the REC**.**
>
>   **All sections of the application form must be answered as instructed and within the word limits given.**

Applications which do not adhere to all of these requirements will not be accepted for review and will be returned directly to the applicant.

Applications must be completed on the form; answers in the form of attachments will not be accepted, except where indicated. No hardcopy applications will be accepted. **Research <u>must not</u> commence until written approval has been received from the Research Ethics Committee.**

Note: If your research requires approval from the Biosafety Committee (BSC), or review by the School of Nursing and Human Sciences Ethics Advisory Committee (SNHSEAC), this must be in place prior to REC submission. Please attach the responses from these committees to this submission as directed below.

PROJECT TITLE	**ezsh**
PRINCIPAL INVESTIGATOR(S) *The named Principal Investigator is the person with primary responsibility for the research project. In the case of Taught Masters projects the supervisor is the Principal Investigator.*	**Dr Stephen Blott**
START AND END DATE	**Start: 24/02/2019 End: 8/03/2019**
LEVEL OF RISK *Please indicate whether this project requires (a) notification (b) expedited **or** (c) full committee review. Justification for your choice is required under section 3.1*	**(a) notification**

Please confirm that <u>all</u> supplementary information is included in your application (in electronic copy). If questionnaire or interview questions are submitted in draft form, please indicate this by putting (draft) after YES. A copy of the final documentation must be submitted for final approval when available.

My application has been collated as one electronic file which includes the following documentation:	INCLUDED (mark as YES)	NOT APPLICABLE (mark as N/A)
Bibliography		N/A
Recruitment advertisement		N/A
Plain language statement/Information Statement		N/A
Informed Consent form		N/A
Personal Data Security Schedule		N/A
Evidence of external approvals related to the research		N/A
Questionnaire/Survey	YES	
Interview/Focus Group Questions	YES	
Debriefing material		N/A
Other (e.g. BSC approval, SNHSEAC review letter)		N/A

Please note:
1. Any amendments to the original approved proposal must receive prior REC approval.
2. As a condition of approval investigators are required to document and report immediately to the Secretary of the Research Ethics Committee any adverse events, any issues which might negatively impact on the conduct of the research and/or any complaint from a participant relating to their participation in the study

1. ADMINISTRATIVE DETAILS

PROJECT TYPE: (mark Y to as many as apply)	Research Project	…	Funded Consultancy	…
			Clinical Trial	…
	Student Research Project (please indicate level, e.g. PhD/MSc Research)	…	Other - Please Describe: Software Engineering Project	Y
	PhD / Other Doctorate	…		
	MSc Research	…		

1.1 INVESTIGATOR CONTACT DETAILS

PRINCIPAL INVESTIGATOR(S): *Doctoral researchers and Research Masters or their supervisors may be listed as Principal Investigators, depending on the conventions of the discipline and on the individual case. It should be made clear, in subsequent sections of this application, who is carrying out the research procedures.*

NAME	SCHOOL/UNIT	EMAIL
Dr. Stephen Blott	School of Computing	stephen.blott@dcu.ie

OTHER INVESTIGATORS:

NAME	SCHOOL/UNIT	EMAIL
Connor Mulready	School of Computing	connor.mulready2@mail.dcu.ie
James McDermott	School of Computing	

1.2 WILL THE RESEARCH BE UNDERTAKEN ON-SITE AT DUBLIN CITY UNIVERSITY?

YES or NO
YES

(If NO, state details of the off-campus location – provide details of the approval to gain access to that location in section 2.7.)

1.3   IS THIS PROTOCOL BEING SUBMITTED TO ANOTHER ETHICS COMMITTEE, OR HAS IT BEEN PREVIOUSLY SUBMITTED TO AN ETHICS COMMITTEE?

YES or NO
NO

(If YES, please provide details and attach copies of approval(s) received etc.)

DECLARATION BY PRINCIPAL INVESTIGATOR(S)

The information contained herein is, to the best of my knowledge and belief, accurate. I have read the University's current research ethics guidelines, and accept responsibility for the conduct of the procedures set out in the attached application in accordance with the form guidelines, the REC guidelines (https://www.dcu.ie/researchsupport/researchethics.shtml), the University's policy on Conflict of Interest, Code of Good Research Practice and any other condition laid down by the Dublin City University Research Ethics Committee. I have attempted to identify all risks related to the research that may arise in conducting this research and acknowledge my obligations and the rights of the participants.

If there exists any affiliation or financial interest for researcher(s) in this research or its outcomes or any other circumstances which might represent a perceived, potential or actual conflict of interest this should be declared in accordance with Dublin City University policy on Conflicts of Interest.

I and my co-investigators or supporting staff have the appropriate qualifications, experience and facilities to conduct the research set out in the attached application and to deal with any emergencies and contingencies related to the research that may arise.

Electronic Signature(s):

Principal investigator(s): _____

Print Name(s) here:_____

Date: _____

2.   PROJECT OUTLINE

2.1   LAY DESCRIPTION *(Approx. 300 words)*
Please outline, in terms that any non-expert would understand, what your research project is about, including what participants will be required to do. Please explain any technical terms or discipline-specific phrases.

> To create a introductory, easy to use and educational shell that would ease new comers into the Linux (type of operating system) enviroment. The goal is to reduce the steep learning curve that already exists with a linear one by introducing concepts the user is familiar with.

2.2   AIMS OF AND JUSTIFICATION FOR THE RESEARCH *(Approx. 400 words)*
State the aims and significance of the project. Where relevant, state the specific hypothesis to be tested. Please provide a brief description of background research, a justification as to why this research project should proceed in that context and an explanation of any expected benefits to the community. NB – all references cited should be listed in an attached bibliography.

> Aim of the research is to ensure that we met our requirement by reducing the learning curve so much so that a complete novice can easily sit down and begin to use our application and complete day to day tasks whilst learning how to do the same in the Linux default shell as to not isolate them completely.

2.3   DESCRIBE THE METHODOLOGY BEING USED TO ACHIEVE YOUR STATED AIMS
Provide an outline of the proposed method and state who is doing which task – include details of data collection techniques, the tasks participants will be asked to do, the estimated time commitment involved, and how data will be analysed. If the project includes any procedure which is beyond already established and accepted techniques please include a description of it. There should be enough detail provided to facilitate ethical review, but applicants are encouraged to keep it as succinct as possible.

> All participants will be asked to complete a simple programming task whilst navigating their operating system whilst using ezsh. We aim to conduct surveys and questionnaires to find out what we did right, what we did wrong and what we can do better. We also aim to have focus groups so that we can guage usability and user experience of people who use the application. The data will be revised and based of the data we will make appropriate changes to ensure that ezsh gets closer to its overall goal, of being a easy to use and educational shell.

2.4   PARTICIPANT PROFILE
Provide the number, age range and source of participants. Please provide a justification of your proposed sample size. Please provide a justification for selecting a specific gender, age, or any other group if this is done in your project.

> **Participants will consist of no more than twenty people as we do not need extensive amounts of data and will all be above the age of eighteen. Participants will be newcomers and people who are uncomfortable with the shell environment therefore we will be aiming more towards students who have a background in computing.**

2.4(a)   PARTICIPANT VULNERABILITY
Are some or all of participants vulnerable in any way? (e.g by virtue of the group they belong to, people who have undergone traumatic or adverse emotional events, people with diminished cognitive ability, power relations between researchers and participants etc.)? If they are, state what this vulnerability (or vulnerabilities) is and justify why this research is being done with such participants.

> **N/A**

2.4(b) **CHILD PARTICIPANTS (anyone under 18 years old)**
*If your participants include children, you **must** confirm that you are in compliance with the research specific guidelines as detailed in "Keeping Children Safe - Policies and Procedures supporting Child Protection at DCU" - available at: https://www4.dcu.ie/sites/default/files/policy/157%20-%20child_protection_handbook_rev1%282%29%281%29.pdf*

Please indicate your compliance with the following guidelines:	Mark here
We confirm that we have read and agree to act in accordance with the DCU Child Protection policy and procedures	N/A
We confirm that we have put in place safeguards for the children participating in the research	N/A
We confirm that we have supports in place for children who may disclose current or historical abuse (whether or not this is the focus of the research)	N/A

2.5 **EXPLAIN HOW PARTICIPANTS ARE TO BE RECRUITED**
Please provide specific details as to how you will be recruiting participants. How will people be informed that you are doing this research? How will they be approached and asked if they are willing to participate? If you are mailing or phoning people, please explain how you have obtained their names and contact details. If a recruitment advertisement is to be used, please ensure you attach a copy to this application.

Through society events and through Messenger group-chats.

2.6 **PLEASE EXPLAIN WHEN, HOW, WHERE, AND TO WHOM RESULTS WILL BE DISSEMINATED, INCLUDING WHETHER PARTICIPANTS WILL BE PROVIDED WITH ANY INFORMATION AS TO THE FINDINGS OR OUTCOMES OF THE PROJECT?**

Results from the research will be disseminated through the various features/design approaches we take with ezsh and those who wish to view the results can do so through ezsh.

2.7 **ARE OTHER APPROVALS REQUIRED TO GAIN ACCESS TO ANOTHER LOCATION, ORGANISATION ETC.?**

YES or NO
NO

(If YES, please specify from whom and attach a copy of the approval documentation. If this is not yet available, please explain when this will be obtained.)

2.8 **HAS A SIMILAR PROPOSAL BEEN PREVIOUSLY APPROVED BY THE DCU REC?**

YES or NO
NO

(If YES, please state both the REC Application Number and Project Title)

3. RISK AND RISK MANAGEMENT

3.1 JUSTIFICATION OF STATED LEVEL OF RISK TO RESEARCH PARTICIPANTS
You must provide a justification for the stated level of risk, as indicated on the cover page of your application. Note that the level of risk may be influenced by the vulnerability of the research group, the methods employed and the nature of the research itself. For further information on risk levels, please refer to the Levels of Review information on the website: https://www.dcu.ie/researchsupport/researchethics.shtml

> The data we receive will only be strictly on ezsh (no participant information) except there how long they have been using a shell or if they have used one.

3.2 DOES THE RESEARCH INVOLVE:

	YES or NO
use of a questionnaire? (attach copy)?	YES
interviews (attach interview questions)?	YES
observation of participants without their knowledge?	NO
participant observation (provide details in section 2)?	YES
audio- or video-taping interviewees or events?	NO
access to personal and/or confidential data (including student, patient or client data) without the participant's specific consent?	NO
administration of any stimuli, tasks, investigations or procedures which may be experienced by participants as physically or mentally painful, stressful or unpleasant during or after the research process?	NO
performance of any acts which might diminish the self-esteem of participants or cause them to experience embarrassment, regret or depression?	NO
investigation of participants involved in illegal activities?	NO
procedures that involve deception of participants?	NO
administration of any substance or agent?	NO
use of non-treatment of placebo control conditions?	NO
collection of body tissues or fluid samples?	NO
collection and/or testing of DNA samples?	NO
participation in a clinical trial?	NO
administration of ionising radiation to participants?	NO

3.3 POTENTIAL RISKS TO PARTICIPANTS AND RISK MANAGEMENT PROCEDURES
Identify, as far as possible, all potential risks to participants (physical, psychological, social, legal, economic, etc.), associated with the proposed research. Please explain what risk management procedures will be put in place to minimise these risks.

> N/A

3.4 ARE THERE LIKELY TO BE ANY BENEFITS (DIRECT OR INDIRECT) TO PARTICIPANTS FROM THIS RESEARCH?

YES or NO
YES

(If YES, provide details.)

> They may learn something new in regards to computing.

3.5 ARE THERE ANY SPECIFIC RISKS TO RESEARCHERS?
Examples include use of dangerous materials, asking certain types of questions, research being undertaken in certain locations, researchers working alone in isolated areas, etc.

YES or NO

NO

(If YES, please describe and explain what risk management procedures will be put in place to minimise these risks.)

3.6 DEALING WITH ADVERSE/UNEXPECTED OUTCOMES
Please describe what measures/protocols you have put in place in the event that there are any unexpected outcomes or adverse effects to participants arising from involvement in the project.

N/A

3.7 HOW WILL THE CONDUCT OF THE PROJECT BE MONITORED?
Please explain how the principal investigator will monitor the conduct of the project (especially where several people are involved in recruiting or interviewing, administering procedures, etc.) to ensure that it conforms with the procedures set out in this application. In the case of student projects please give details of how the supervisor(s) will monitor the conduct of the project.

They will be able to view the data and see what and what was not implemented based on the feedback.

3.8 SUPPORT FOR PARTICIPANTS
Depending on risks to participants you may need to consider having additional support for participants during/after the study. Consider whether your project would require additional support, e.g., external counselling available to participants. Please advise what support will be available.

N/A

3.9 DO YOU PROPOSE TO OFFER PAYMENTS OR INCENTIVES TO PARTICIPANTS?

YES or NO
NO

(If YES, please provide further details.)

3.10 DO ANY OF THE RESEARCHERS ON THIS PROJECT HAVE A PERSONAL, PHILOSOPHICAL, FINANCIAL OR COMMERCIAL INTEREST IN ITS OUTCOME THAT MIGHT INFLUENCE THE INTEGRITY OF THE RESEARCH, OR BIAS THE CONDUCT OR REPORTING OF THE RESEARCH, OR UNDULY DELAY OR OTHERWISE AFFECT THEIR PUBLICATION?

YES or NO
NO

(If YES, please specify how this conflict of interest will be addressed.)

4. INVESTIGATORS' QUALIFICATIONS, EXPERIENCE AND SKILLS *(Approx. 200 words)*

*List the academic qualifications and outline the experience and skills <u>relevant to this project</u> that the PI, other researchers and any supporting staff have in carrying out the research and in dealing with any emergencies, unexpected outcomes, or contingencies that may arise. **State specifically who will be carrying out the research procedures***

N/A

5. CONFIDENTIALITY/ANONYMITY

5.1 WILL THE IDENTITY OF THE PARTICIPANTS BE PROTECTED?

YES or NO
YES

(If NO, please explain why.)

IF YOU ANSWERED YES TO 5.1, PLEASE ANSWER THE FOLLOWING QUESTIONS:

5.2 HOW WILL THE ANONYMITY OF THE PARTICIPANTS BE RESPECTED?
Please bear in mind that where the sample size is very small, it may be impossible to guarantee anonymity/confidentiality of participant identity. Participants involved in such projects need to be advised of this limitation in the Plain Language Statement/Information Sheet. If you intend to fully anonymize the data, please provide details

Have the participants answer an anonymous survey in their own time.

5.3 LEGAL LIMITATIONS TO DATA CONFIDENTIALITY
Participants need to be made aware that confidentiality of information provided cannot always be guaranteed by researchers and can only be protected within the limitations of the law - i.e., it is possible for data to be subject to subpoena, freedom of information claim or mandated reporting by some professions. This information should be included in your Plain Language Statement and Informed Consent Form. Depending on the research proposal and academic discipline, you may need to state additional specific limitations.

State how and where participants will be informed of these limitations

As we will not be dealing with any confidential participant information this will not be applicable.

6.   PERSONAL DATA - COMPLIANCE WITH THE GENERAL DATA PROTECTION REGULATION

*Personal data is data relating to a living individual (i.e. the 'Data Subject') who is, or can be, identified either from the data itself or from the data in conjunction with other information that is in, or is likely to come into, the possession of the 'Data Controller' (i.e. DCU and its constituent units e.g. research teams etc.). **Further information on personal data is available from the DCU Data Protection Unit at https://www.dcu.ie/ocoo/dp/guides.shtml***

6.1   IS PERSONAL DATA BEING PROCESSED AS PART OF THIS PROJECT?

YES or NO
NP

If YES, Please indicate your compliance with the following guidelines:	Mark here
We confirm that we have read and agree to act in accordance with DCU Data Protection Unit guidance and procedures regarding personal data	
We confirm that we have put in place a Personal Data Security Schedule (PDSS) for the project and have attached it to this application	

Please see the GDPR and the Research Ethics Process section of the REC main webpage for guidance

IF YOU ANSWERED YES TO 6.1, PLEASE ANSWER THE FOLLOWING QUESTIONS:

6.2   WHAT KIND OF PERSONAL DATA IS BEING PROCESSED?
   Note special categories of personal data include health data, genetic data and/or data relating to ethnicity/race of participants, their sex lives and/or sexual orientation

6.3   WILL ANONYMISATION/PSEUDONYMISATION OF THE PERSONAL DATA BE UNDERTAKEN?

YES or NO
...

   (If NO, please explain why.)

7.   DATA/SAMPLE STORAGE, SECURITY AND DISPOSAL

For the purpose of this section, "Data" includes that in a raw or processed state (e.g. interview audiotape, transcript or analysis). "Samples" include body fluids or tissue samples.

7.1   HOW AND WHERE WILL THE DATA/SAMPLES BE STORED?
Note that the REC recommends that all data be stored on campus – please justify any off-site storage.

> **Google Surveys; as it will be the easiest way for participants to answer and to ensure complete anonymity is such a small sample size**

7.2   WHO WILL HAVE ACCESS TO DATA/SAMPLES?
If people other than the main researchers have access, please name who they are and explain for what purpose.

> **Contributors and supervisor to the project**

7.3   HOW LONG IS THE DATA TO BE HELD/RETAINED FOR?
Note that with very few exceptions personal data may not be retained indefinitely. It is up to the unit or research team to establish an upper retention limit for each category of personal data under its control.

> For the duration of the project.

7.4   IF DATA/SAMPLES ARE TO BE DISPOSED OF, PLEASE EXPLAIN <u>HOW</u>, <u>WHEN</u> AND <u>BY WHOM</u> THIS WILL BE DONE?
Note that simply deleting files is not sufficiently secure. The additional steps to be taken to maintain data security should be given. Personal data must be disposed of in a safe and secure manner at the end of its retention period. If the data is stored in a: a) paper based format then shredding or disposal via a secure bin is recommended; or b) if it is stored in an electronic based format then deletion of the record or full anonymization of the data is recommended.If data/samples are NOT being disposed of, please justify this decision.

> The contributors will dispose of the data at the end of the project and by deleting the survey results.

8.   FUNDING OF THE RESEARCH

8.1   HOW IS THIS WORK BEING FUNDED?

> **N/A**

8.2   PROJECT GRANT NUMBER *(If relevant and/or known – otherwise mark as N/A)*

> N/A

8.3   DOES THE PROJECT REQUIRE APPROVAL BEFORE CONSIDERATION FOR FUNDING BY A GRANTING BODY?

> **YES or NO**
> **...**

8.4.1   HOW WILL PARTICIPANTS BE INFORMED OF THE SOURCE OF THE FUNDING? *(e.g. included in the Plain Language Statement)*

> **N/A**

8.5   DO THE FUNDERS OF THIS PROJECT HAVE A PERSONAL, FINANCIAL OR COMMERCIAL INTEREST IN ITS OUTCOME THAT MIGHT COMPROMISE THE INDEPENDENCE AND INTEGRITY OF THE RESEARCH, OR BIAS THE CONDUCT OR REPORTING OF THE RESEARCH, OR UNDULY DELAY OR OTHERWISE AFFECT THEIR PUBLICATION?

> **YES or NO**
> **...**

> *(If YES, please specify how this conflict of interest will be addressed.)*

9. PLAIN LANGUAGE STATEMENT *(Attach to this document. Approx. 400 words)*

A Plain Language Statement (PLS) should be used in all cases. This is written information in plain language that you will be providing to participants, outlining the nature of their involvement in the project and inviting their participation. The PLS should specifically describe what will be expected of participants, the risks and inconveniences for them, and other information relevant to their involvement. Please note that the language used must reflect the participant age group and corresponding comprehension level – if your participants have different comprehension levels (e.g. both adults and children) then separate forms should be prepared for each group. The PLS can be embedded in an email to which an online survey is attached, or handed/sent to individuals in advance of their consent being sought. See link to sample templates on the website: https://www.dcu.ie/researchsupport/ethicsapproval.shtml

PLEASE CONFIRM WHETHER THE FOLLOWING ISSUES HAVE BEEN ADDRESSED IN YOUR PLAIN LANGUAGE STATEMENT/ INFORMATION SHEET FOR PARTICIPANTS:

	YES or NO
Introductory Statement (PI and researcher names, school, title of the research)	YES
What is this research about?	YES
Why is this research being conducted?	YES
What will happen if the person decides to participate in the research study?	YES
How will their privacy be protected?	YES
How will the data be used and subsequently disposed of?	YES
What are the legal limitations to data confidentiality?	NO
What are the benefits of taking part in the research study (if any)?	YES
What are the risks of taking part in the research study?	NO
Confirmation that participants can change their mind at any stage and withdraw from the study	YES
How will participants find out what happens with the project?	YES
Contact details for further information (including REC contact details)	YES
Details relating to GDPR Compliance if Personal Data is being sought	NO

If any of these issues are marked NO, please justify their exclusion:

Data confidentiality will not play a part in this research as we do not want or care for any personal details.
There are no risks involved in this research as it simply involves testing some program that does not maintain any data on the user.
GDPR will not be an issue as we are not keeping any data after the project finishes and data will not have any personal information in it.

10. INFORMED CONSENT FORM *(Attach to this document. Approx. 300 words)*

In most cases where interviews or focus groups are taking place, an Informed Consent Form is required. This is an important document requiring participants to indicate their consent to participate in the study, and give their signature. If your participants are minors (under 18), it is best practice to provide them with an assent form, while their parents/guardians will be given the Informed Consent Form. In cases where an anonymous questionnaire is being used, it is enough to include a tick box in the questionnaire (underneath the information section for participant), where participants can indicate their consent.
See link to sample templates on the website: https://www.dcu.ie/researchsupport/ethicsapproval.shtml

NB – IF AN INFORMED CONSENT FORM IS NOT BEING USED, THE REASON FOR THIS MUST BE JUSTIFIED HERE.

The research gathering and sample size is too small for a consent form. It will also deter people from participating.

Plain Language Statement

Ezsh (Easy Shell) is an introductory shell designed to introduce newcomers to Linux to the shell environment while retaining familiarity and ensuring that they can navigate the operating system with ease whilst learning the fundamentals of the default Linux shell through passive learning. The research we aim to conduct in regards to ezsh is to check that we have met expectations in delivering a easy to use introductory shell that is intuitive by nature and that anyone of any skill level or background can pick up in a short period of time. In order to gauge this we will be focusing on the screen design, usability and user experience of the shell.

The department involved with the project is that of the School of Computing and will be conducted under the principle investigator Dr. Stephen Blott (stephen.blott@dcu.ie). Other investigators include Connor Mulready (Connor.mulready2@mail.dcu.ie) and JamesMcDermott (james.mcdermott7@mail.dcu.ie).

The research process will consist of completing a set of tasks both in Linux's default shell and the ezsh, whilst this is being done investigators will observe and note the approach taken to complete tasks in both shells. There will be a post task group session where we will discuss as a group the pros and cons of both shells. Finally we would ask participants to fill out a survey anonymously in their own free time to give further feedback. This whole process from start to finish should take no longer than sixty-minutes total.

The benefits that may occur throughout the research process is that the participant will get a preview of ezsh and have a say in its final implementation also we hope that the participant may learn something new about Linux by the end of the process or be inspired to create something similar.

As we don't plan to ask for any personal data there won't be any need to destroy the data.

If participants have concerns about this study and wish to contact an independent person, please contact:
*The Secretary, Dublin City University Research Ethics Committee, c/o Research and Innovation Support, Dublin City University, Dublin 9. Tel 01-7008000, e-mail **rec@dcu.ie***

EZSH Survey

A simple anonymous survey based of your experience during the ezsh (easy shell) research process.
The survey will be divided into two sections. Questions on your experience and progress with Linuxs default shell (bash) and another set of questions on your experience and progress with ezsh.

*Required

1. What tasks did you successfully complete?(bash) *
Tick all that apply.

- [ ] Make a directory in home called 'ezshResearchDir'
- [ ] Change into a directory
- [ ] Create a file in your home directory 'ezshResearchFile'
- [ ] Edit 'ezshResearchFile'
- [ ] Move 'ezshResearchFile' into 'ezshResearchDir'
- [ ] Make a sub directory in 'ezshResearchDir'
- [ ] Change into that directory
- [ ] Go to the home directory in a single command
- [ ] Delete 'ezshResearchDir'

2. What tasks did you successfully complete?(ezsh) *
Tick all that apply.

- [ ] Make a directory in home called 'ezshResearchDir'
- [ ] Change into a directory
- [ ] Create a file in your home directory 'ezshResearchFile'
- [ ] Edit 'ezshResearchFile'
- [ ] Move 'ezshResearchFile' into 'ezshResearchDir'
- [ ] Make a sub directory in 'ezshResearchDir'
- [ ] Change into that directory
- [ ] Go to the home directory in a single command
- [ ] Delete 'ezshResearchDir'

3. How long did it take you to complete the tasks (bash) *

Example: 8.30 a.m.

4. How long did it take you to complete the tasks? (ezsh) *

Example: 8.30 a.m.

5. How intuitive was the bash? *
Mark only one oval.

1	2	3	4	5	6	7	8	9	10
○	○	○	○	○	○	○	○	○	○

https://docs.google.com/forms/d/1NsqGUykVwoVY05cd3ffTj5xWs9Tj7sK-cWQDQX5I8A/edit   1/3

6. **How intuitive was the ezsh?** *

Mark only one oval.

	1	2	3	4	5	6	7	8	9	10
	○	○	○	○	○	○	○	○	○	○

7. **Anything you preferred in one that was not in the other? (Specify what shell had what you liked and how you think it could benefit the other)** *

_____

_____

_____

_____

_____

8. **What did ezsh do well compared to bash?**

_____

_____

_____

_____

_____

9. **What did ezsh do poorly compared to bash?**

_____

_____

_____

_____

_____

10. **How many years of experience do you have?** *

_____

11. **Would you recommend ezsh to a friend?** *

Mark only one oval.

○ Yes

○ No

12. **Can you explain why you would/would not recommend it?**

_____

_____

_____

_____

_____