Test ID	Name	Pre-Condition	Post-Condition	Success condition	Fail condition	Status	Category	Iters
	Generatio-n of keys	No keys present	N/A	Keys become generated	No keys generated , error should be raised	PASSI NG	Encryption	10
0002	Storage of keys	Keys available and not currently in datastore	N/A	Keys are stored and queriable	Keys are not stored, error should be raised	PASSI NG	Encryption/ Datastore	10
0003	Retrieval of keys (local)	Key(s) stored in the respectable cryptostore directory	N/A	Key(s) is retrieved and is usable	Key(s)ar en't retrieved , user needs to be notified	PASSI NG	Encryption	10

0004	Retrieval of public keys (online)	Keys have been successfully uploaded to datastore	N/A	Keys are retrieved and usable	Key is not retrieved, user should be notified	PASSING	Encryption/ Datastore	10
0005	Encrypting a file (using local owned key)	There is a file available for encryption	N/A	File becomes encrypted	File is not encrypted	PASSING	Encryption	10
0006	Encrypting a file (using imported key)	There is a file available for encryption and the recipient has there keys available for query	N/A	File becomes encrypted	File is not encrypted	PASSING	Encryption/ Datastore	10

| 0007 | Decrypting a file | There is a file available and the file was destined for you | N/A | File is decrypted | File is not decrypted, user prompted that they are not

authorised | PASSING | Decryption | 10 |
| 0008 | Execution of installation scripts | The software has just been downloaded and not previously

installed | The installation directory will be completely eradicated from

the system | The necessary libraries are installed, relevant directories

become present | Essential files are not installed, possibility of nuking OS | PASSING | Setup | 20 |
| ABOVE FILES | ARE INTEGR | BELOW ARE UNIT | | | | | | |

	ATION TEST							
0001	Generation of unique prime numbers	N/A	N/A	2 unique prime numbers are generated for RSA	N/A	PASSING	Utils	150
0002	Testing of numbers for primality	(Possibly) prime numbers have been generated	Number can be used for key gen	Number is accepted as being prime	Number disbanded, new number generated	PASSING	Utils	150
0003	Testing for correctness of modular inverse	Number (with known) modular inverse exists and needs verification	N/A	Mod-inv of a number is returned	Doesnt exist, error raised (should not happen)	PASSING	Utils	150

0004	Obtainm ent of two prime numbers	Two prime numbers are needed for key generation	Keys CAN be gener ated	Two (very large) prime numbers are generate d	N/A	PASSI NG	Utils	150
0005	Ensure file writer behaves as expecte d (dummy data)	Encrypted data needs to be written back to the file	File contai ns encryp ted ata	N/A	No data written to file (shouldn t happen)	PASSI NG	Encryption	20
0006	Ensure file reader behaves as expecte d (dummy data)	Data needs to be read from a file (empty or none empty)	N/A	Data is read from file	No data read from file (if the file is non-emp ty , this should not be possible)	Passin g	Encryption	20
007	Ensure image directory	Image directory not present		Images	Cannot	Passin	Facial	20

	is created before images are stored		Image directory present	are stored in image directory	store images in images directory unable to go further	g	Recognition	
008	Ensure haar cascade is generated	Image directory present	Haar cascade is generated	Haar cascade is usable by classifier	Classifier unable to use haar cascade	Passing	Facial Recognition	50
009	Detect User	Haar cascade generated	n/a	User detected	Unable to detect user	Passing	Facial Recognition	100
010	Upload to firebase	Username not taken	Username taken	Username uploaded	User needs to user another name	Passing	Facial Recognition	30

011	Query public key	Username is in firebase database	Public key retrieved	Public key can be used to encrypt file	Public not retrieve therefore cannot encrypt file	Passing	Encryption/ Facial Recognition	40
012	Lookup last contacted	User has contacted another user of the system	User can see last contacted	User can select last contacted user	User cannot select last contacted user	Passing	UI	50
013	Select file	File not selected	File selected	User can encrypt/decrypt file	User cannot encrypt/ decrypt file	Passing	UI	35
014	Encrypt file	User has selected file	n/a	File is encrypted	File is not	Passing	UI/Facial recognition/ Encryption	120

					encrypted			
015	Decrypt file	File is encrypted	n/a	File is encrypted	File is not decrypted	Passing	UI/Facial/Encryption	90

User testing

Users from within CASE3 and other tech-oriented (and interested) people took on the role of doing user tests. There were no questionnaires and or surveys as we wanted to make the participants feel as though they were merely using new software. From testing other peoples CA326 projects , we felt having to fill out any form of paperwork was an incentive toward not participating in the tests.

During these test sessions, myself and Kyle would take notes on the users overall experience and how they felt throughout the process. We would then go and make changes based on these findings, and , manually re-test our software (as the UI and components couldnt be tested using unit)

From this we got a no-nonsense flow of reliable information from the participants from which we could go ahead improve our app