Batch Test Plan

Controller – edge case:

Testing different commands	Testing situation	Expected value
"q" & "quit"	`inputStream = "q" or "quit"`	Terminate the program, aka nothing happens
"load goat.png"	`inputStream = "load goat.png"`	Model.image = same image from the goat.png `No such image` if file does not exist
"load"	`inputStream = "load"`	`IllegalArgumentException("Null or blank file name found");`
"save goat_save_test.png"	`inputStream = "load goat.png save goat_save_test.png"`	Model.image is saved as goat_save_test.png
"save"	`inputStream = "save"`	`IllegalArgumentException("Null or blank file name found");`
"blur", "sharpen", "grey", "sepia", "reduce", "dither", "mosaic", "pixelate", "pattern", "check"	Called these commands before image was loaded	`IllegalArgumentException("No image loaded");`

Controller – Filter related case:

Testing different commands	Testing situation	Expected value
"blur"	inputStream = "load goat.png blur save goat_blur.png"	goat.png is intact, goat_blur.png has been created with goat.png blurred once
"sharpen"	inputStream = "load goat.png sharpen save goat_ sharpen.png"	goat.png is intact, goat_sharpen.png has been created with goat.png sharpened once

Controller – Transform related case:

Testing different commands	Testing situation	Expected value
"grey"	inputStream = "load goat.png grey save goat_grey.png"	goat.png is intact, goat_grey.png has been created with goat.png grey scaled
"sepia"	inputStream = "load goat.png sepia save goat_ sepia.png"	goat.png is intact, goat_ sepia.png has been created with goat.png transformed to sepia

Controller – Reduce related case:

Testing different commands	Testing situation	Expected value

"reduce 8"	`inputStream =`
	 "`load goat.png`
	 `reduce 8`
	 `save goat_reduce8.png`"
		goat.png is intact, goat_reduce8.png has been created with goat.png reduced to 8 colors per color channel

"reduce 0"	`inputStream =` "`load goat.png` `reduce 0`"	`IllegalArgumentException(`"`Invalid reduce colors`"`);`
"reduce 256"	`inputStream =` "`load goat.png` `reduce 256`"	`IllegalArgumentException(`"`Invalid reduce colors`"`);`
"reduce a" non-integer entered as next input	`inputStream =` "`load goat.png` `reduce a`"	`InputMismatchException`
"reduce"	`inputStream =` "`load goat.png` `reduce`"	`NoSuchElementException`

"dither 8"	`inputStream =`
	 "`load goat.png`
	 `dither 8`
	 `save goat_dither8.png`"
		goat.png is intact, goat_dither8.png has been created with goat.png reduced to 8 colors per color channel and dithering has been applied

"dither 0"	`inputStream =` "`load goat.png` `dither 0`"	`IllegalArgumentException(`"`Invalid reduce colors`"`);`
"reduce 256"	`inputStream =` "`load goat.png` `dither 256`"	`IllegalArgumentException(`"`Invalid reduce colors`"`);`
"dither a" non-integer entered as next input	`inputStream =` "`load goat.png` `dither a`"	`InputMismatchException`
"dither"	`inputStream =` "`load goat.png` `dither`"	`NoSuchElementException`

Controller – Mosaic & Pixelate:

Testing different commands	Testing situation	Expected value
"mosaic 10"	inputStream = "load goat.png Mosaic 10 save goat_mosaic10.png"	goat.png is intact, goat_mosaic10.png has been created with goat.png applied with mosaic with 10 clusters
"mosaic 0"	inputStream = "load goat.png Mosaic 0"	IllegalArgumentException("Seed cannot be less than 1");
"mosaic 99999999" seed size is more than the total pixel of the image	inputStream = "load goat.png Mosaic 99999999"	IllegalArgumentException("Too many seeds");
"mosaic a" non-integer entered as next input	inputStream = "load goat.png mosaic a"	InputMismatchException
"mosaic"	inputStream = "load goat.png mosaic"	NoSuchElementException
"pixelate 10"	inputStream = "load goat.png pixelate 10 save goat_ pixelate10.png"	goat.png is intact, goat_ pixelate10.png has been created with goat.png applied with pixelate with 10 super pixel per row
"pixelate 0"	inputStream = "load goat.png pixelate 0"	IllegalArgumentException("numOfSquares cannot be less than 1");
"pixelate 99999999" seed size is more than the total pixel of the image	inputStream = "load goat.png pixelate 99999999"	IllegalArgumentException("Too many numOfSquares");
"pixelate a" non-integer entered as next input	inputStream = "load goat.png pixelate a"	InputMismatchException
"pixelate"	inputStream = "load goat.png pixelate"	NoSuchElementException

Controller – Pattern:

Testing different commands	Testing situation	Expected value

"pattern 10"	`inputStream =`
	`"load goat.png`
	`Pattern 10"`
		goat.png is intact
		a cross stitch pattern of this pixelated image has been created and stored in the model

"pattern a"	`inputStream =`
	`"load goat.png`
	`Pattern a"`
		InputMismatchException

"pattern"	`inputStream =`
	`"load goat.png`
	`Pattern"`
		NoSuchElementException

"export"	`inputStream =` `"export"`	NoSuchElementException
"export pattern.txt"	`inputStream =` `"export pattern.txt"`	goat.png is intact a cross stitch pattern of this pixelated image has saved as pattern.txt
"checkp"	`inputStream =` `"checkp"`	If pattern was never called, return IllegalStateException, if it was called, do nothing

Controller – Mock model:

Testing different commands	Testing situation	Expected value
"load goat.png"	inputStream = "load goat.png"	Print "load called with goat.png"
"save goat.png"	inputStream = "save goat.png"	Print "save called with goat.png"
"blur"	inputStream = "blur"	Print "blur called"
"sharpen"	inputStream = "sharpen"	Print "sharpen called"
"grey"	inputStream = "grey"	Print "grey called"
"sepia"	inputStream = "sepia"	Print "sepia called"
"reduce 10"	inputStream = "reduce 10"	Print "reduce called with 10"
"dither 10"	inputStream = "dither 10"	Print "dither called with 10"
"mosaic 10"	inputStream = "mosaic 10"	Print "mosaic called with 10"
"pixelate 10"	inputStream = "pixelate 10"	Print "pixelate called with 10"
"pattern 10"	inputStream = "pattern 10"	Print "pattern called with 10"
"export pattern.txt"	inputStream = "export pattern.txt"	Print "export called with pattern.txt"
"check"	inputStream = "check"	Print "check called"
"checkp"	inputStream = "checkp"	Print "checkp called"

View Test Plan

Controller – edge case:

Testing different commands	Testing situation	Expected value
Click close or ALT F4	`Click X button or ALT F4 while program is focused`	Program terminated
Open file	`Click open file and select a png image`	Image is loaded and displayed in the program
Save, blur, sharpen, grey, sepia, reduce, dither, mosaic, pixelate, pattern called before opening an image	Click one of the Save, blur, sharpen, grey, sepia, reduce, dither, mosaic, pixelate, pattern before opening a file	Pop up box saying "No image loaded"
Save Cross Stitch before generating cross stitch pattern	Click Save Cross Stitch before generating cross stitch pattern	Pop up box saying "No pattern generated yet"
Any batch command errors	An error in the batch commands	Corresponding error / test cases are covered in the batch test plan above

Controller – Filter related case:

Testing different commands	Testing situation	Expected value
Click blur while image is loaded	`Click blur while image is loaded`	Loaded image is blurred
Click sharpen while image is loaded	`Click sharpen while image is loaded`	Loaded image is sharpened

Controller – Transform related case:

Testing different commands	Testing situation	Expected value
Click grey while image is loaded	`Click grey while image is loaded`	Loaded image is grey
Click sepia while image is loaded	`Click sepia while image is loaded`	Loaded image is sepia

Controller – Reduce related case:

Testing different commands	Testing situation	Expected value
Click reduce and type 8 while image is loaded	Click reduce and type 8 while image is loaded	Image is reduced to 8 color per color channel
Click reduce and type 0 while image is loaded	Click reduce and type 0 while image is loaded	Pop up error "Color per channel cannot be less than 1"
Click reduce and type 256 while image is loaded	Click reduce and type 256 while image is loaded	Pop up error "Color per channel cannot exceed 255"
Click reduce and type "a" or nothing while image is loaded	Click reduce and type a while image is loaded	Pop up error "Enter numbers only"
Click dither and type 8 while image is loaded	Click dither and type 8 while image is loaded	Image is dithered to 8 color per color channel
Click dither and type 0 while image is loaded	Click dither and type 0 while image is loaded	Pop up error "Color per channel cannot be less than 1"
Click dither and type 256 while image is loaded	Click dither and type 256 while image is loaded	Pop up error "Color per channel cannot exceed 255"
Click dither and type "a" or nothing while image is loaded	Click dither and type a while image is loaded	Pop up error "Enter numbers only"

Controller – Mosaic & Pixelate:

Testing different commands	Testing situation	Expected value
Click mosaic and type 10 while image is loaded	Click mosaic and type 10 while image is loaded	Image is applied with mosaic with 10 seed
Click mosaic and type 0 while image is loaded	Click mosaic and type 0 while image is loaded	Pop up error "Seed cannot be less than 1"
Click mosaic and type 999999 while image is loaded	Click mosaic and type 999999 while image is loaded	Pop up error "Number of seed exceeded the total pixel count"
Click mosaic and type "a" while image is loaded	Click mosaic and type "a" while image is loaded	Pop up error "Enter numbers only"
Click pixelate and type 10 while image is loaded	Click pixelate and type 10 while image is loaded	Image is applied with pixelate with 10 super pixel per row
Click pixelate and type 0 while image is loaded	Click pixelate and type 0 while image is loaded	Pop up error "Super pixel cannot be less than 1"
Click pixelate and type 999999 while image is loaded	Click pixelate and type 999999 while image is loaded	Pop up error "Super pixel exceeded pixel count of width"
Click pixelate and type "a" or nothing while image is loaded	Click pixelate and type "a" or nothing while image is loaded	Pop up error "Enter numbers only"

Controller – Pattern:

Testing different commands	Testing situation	Expected value
Click Cross Stitch and enter 10 while image is loaded	Click Cross Stitch and enter 10 while image is loaded	Cross stitch pattern is generated and displayed in the program. The cross stitch patterns super pixel per row is 10
Click Cross Stitch and enter 0 while image is loaded	Click Cross Stitch and enter 0 while image is loaded	Pop up error "Seed cannot be less than 1"
Click Cross Stitch and enter 999999 while image is loaded	Click Cross Stitch and enter 999999 while image is loaded	Pop up error "Number of seed exceeded the total pixel count"
Click Cross Stitch and type "a" or nothing while image is loaded	Click Cross Stitch and type "a" or nothing while image is loaded	Pop up error "Enter numbers only"
Click Save Cross Stitch while a pattern is generated	Click Save Cross Stitch while a pattern is generated	Pattern is saved as a text file
Click one of the super pixel and select blank while a pattern is loaded	Click one of the super pixel and select blank while a pattern is loaded	Pop up a box of available DMC list to change along with an option called "blank" at the top. After clicking this, every super pixel with the same color turns in to a blank super pixel
Click one of the super pixel while a pattern is loaded	Click one of the super pixel while a pattern is loaded	Pop up a box of available DMC list for the user to change that color to, then every super pixel with that color changes to the new color, also the legend updates
Click set DMC list at any time	Click set DMC list at any time	Pop up a box for the user to pick a set of DMC from 489 colors to use as the DMC palette for the future pattern generation
Click add text while pattern is generated	Click add text while pattern is generated	Pop up a text dialog input for the user to input a text to add to the pattern

Controller – Mock model and view:

Testing different commands	Testing situation	Expected value
Click open file	Click open file	Pop up box "load clicked"
Click save file	Click save file	Pop up box "save clicked"
Click blur	Click blur	Pop up box "blur clicked"
Click sharpen	Click sharpen	Pop up box "sharpen clicked"
Click grey	Click grey	Pop up box "grey clicked"
Click sepia	Click sepia	Pop up box "sepia clicked"
Click reduce	Click reduce	Pop up box "reduce clicked"
Click dither	Click dither	Pop up box "dither clicked"
Click mosaic	Click mosaic	Pop up box "mosaic clicked"
Click pixelate	Click pixelate	Pop up box "pixelate clicked"
Click Cross Stitch	Click Cross Stitch	Pop up box "pattern clicked"
Click Save Cross Stitch	Click Save Cross Stitch	Pop up box "export clicked"
Click set DMC list	Click set DMC list	Pop up box "set DMC clicked"
Click Execute batch	Click Execute batch	Pop up box "execute batch clicked"