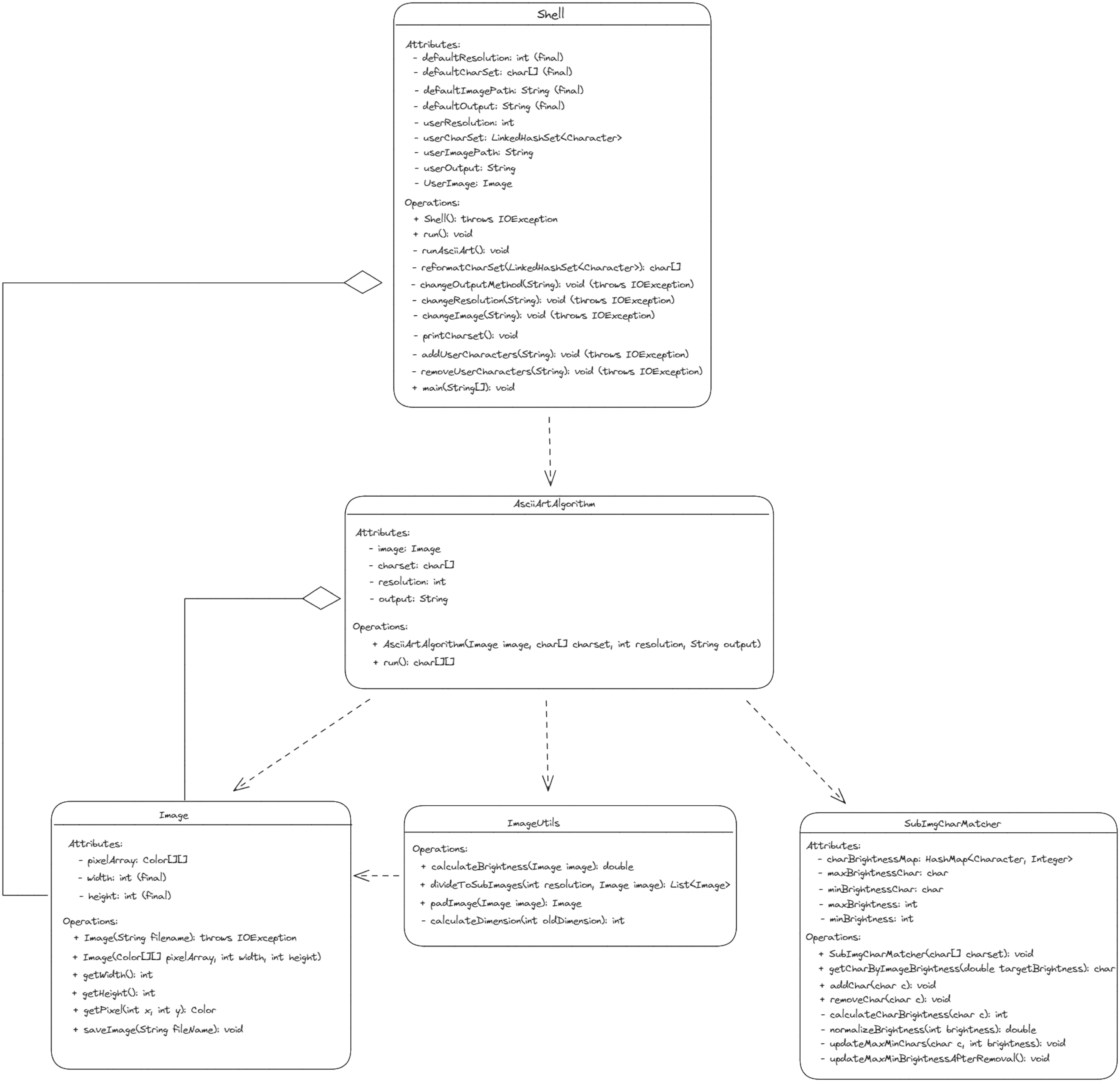

Shell

Attributes:

- defaultResolution: int (final)
- defaultCharSet: char[] (final)
- defaultImagePath: String (final)
- defaultOutput: String (final)
- userResolution: int
- userCharSet: LinkedHashSet<Character>
- userImagePath: String
- userOutput: String
- UserImage: Image

Operations:

+ Shell(): throws IOException
+ run(): void
- runAsciiArt(): void
- reformatCharSet(LinkedHashSet<Character>): char[]
- changeOutputMethod(String): void (throws IOException)
- changeResolution(String): void (throws IOException)
- changeImage(String): void (throws IOException)
- printCharset(): void
- addUserCharacters(String): void (throws IOException)
- removeUserCharacters(String): void (throws IOException)
+ main(String[]): void

AsciiArtAlgorithm

Attributes:

- image: Image
- charset: char[]
- resolution: int
- output: String

Operations:

+ AsciiArtAlgorithm(Image image, char[] charset, int resolution, String output)
+ run(): char[][]

Image

Attributes:

- pixelArray: Color[][]
- width: int (final)
- height: int (final)

Operations:

+ Image(String filename): throws IOException
+ Image(Color[][] pixelArray, int width, int height)
+ getWidth(): int
+ getHeight(): int
+ getPixel(int x, int y): Color
+ saveImage(String fileName): void

ImageUtils

Operations:

+ calculateBrightness(Image image): double
+ divideToSubImages(int resolution, Image image): List<Image>
+ padImage(Image image): Image
- calculateDimension(int oldDimension): int

SubImgCharMatcher

Attributes:

- charBrightnessMap: HashMap<Character, Integer>
- maxBrightnessChar: char
- minBrightnessChar: char
- maxBrightness: int
- minBrightness: int

Operations:

+ SubImgCharMatcher(char[] charset): void
+ getCharByImageBrightness(double targetBrightness): char
+ addChar(char c): void
+ removeChar(char c): void
- calculateCharBrightness(char c): int
- normalizeBrightness(int brightness): double
- updateMaxMinChars(char c, int brightness): void
- updateMaxMinBrightnessAfterRemoval(): void