Product backlog: ranked
1. Web application with backend written in Java
   a. Server side mush handle all photo manipulation, collage generation and session management
2. Main web page has a topic input box, collage shape input box, collage options, save to history button, and build collage button
   a. Collage options:
      i. Size, width of final collage in pixels
      ii. Apply 3 filters, black/white, grey scale, sepia
      iii. Photo borders: on/off – no requirement for border pixels
      iv. Photo rotation: on/off – no requirement for rotation
      v. No requirement for white space
   b. Input box: should have place holder text, but no specific text required
   c. No requirement for the input length
   d. Page color and layout should be attractive
   e. Lower case/upper case sensitive
   f. No rectangular main collage space. Only the letter-shaped collage shown on page, no background
   g. No requirement for the stroke of letters as collage, but CP recommends to adjust the width of the stroke in line with the size of the collage
3. When the Build Collage button is pressed, a collage shall be generated that fills the shape of the letters specified in the shape input with the photos that correspond to the topic input
   a. No time requirement for building the collage
   b. Comes from google image search
   c. White space: no requirement
4. When the Build Collage button is pressed an animated busy/thinking symbol should be displayed until the collage is generated and returned
   a. Page should not reload between each initial or subsequent collage building request
   b. No requirement for what the animated busy/thinking symbol looks like
5. Collage must be made up of at least 30 images
   a. Error message: when there are less than 30 images
6. Access to the application should be controlled by requiring a username and password
   a. Maintain individual collage history for each user, not for session
   b. No requirement for length, format of username and password
   c. No requirement for UI, logout button, implementation method
7. There should be a collage history gallery to display the previously saved collages
   a. Collage clicked at Collage history gallery will show in main collage space
   b. Current collage should save to history if save button clicked. Otherwise, the current collage disappears
   c. No UI requirement for the collage history gallery
   d. User can delete collage in history. No requirement for how to implement
   e. No requirement for the order of collages in the history gallery
   f. No requirement for the saving to history if no collage shown
8. When a collage is displayed there should be an export button that allows for download of the collage
   a. Format can be png or pdf, specified by the user. No requirement on implementation