Nine matlab files are used
- seam_carving_starter.m
- selectarea.m
- carving.m
- energyfunction.m
- computePaths.m
- backtrackMinPath.m
- plotseams.m
- removeseams.m
- addseams.m

To run the code, you need to open and run the seam_carving_starter.m file.

The image used in the assignment is already in the code (rocks.jpg). To change it for another image (more images are available in the images folder), change the code at line 4 of seam_carving_starter.m.

The program will ask the user, through the console, to pick the new width and then the new height of the picture. If the user chooses smaller values, seams will be removed. The user can also pick larger values and then seams will be added.

The program will prompt as well the user to decide if he/she wants to remove a specific area or to protect one from carving (only if dimension values are lower than original). If the user answer yes to any of the question, the image will be shown and the user will have to select the area in question.

A prompt will appear asking the user to wait for computation. The energy function used by default is the gradient magnitude ('magnitude' as parameter of the carving function). That option can be changed to 'entropy' for the use of the entropy function.

Once finished, the different figures will appear on the screen:
- Final carved image
- Horizontal seams
- Horizontally carved image
- Vertical seams
- Energy map