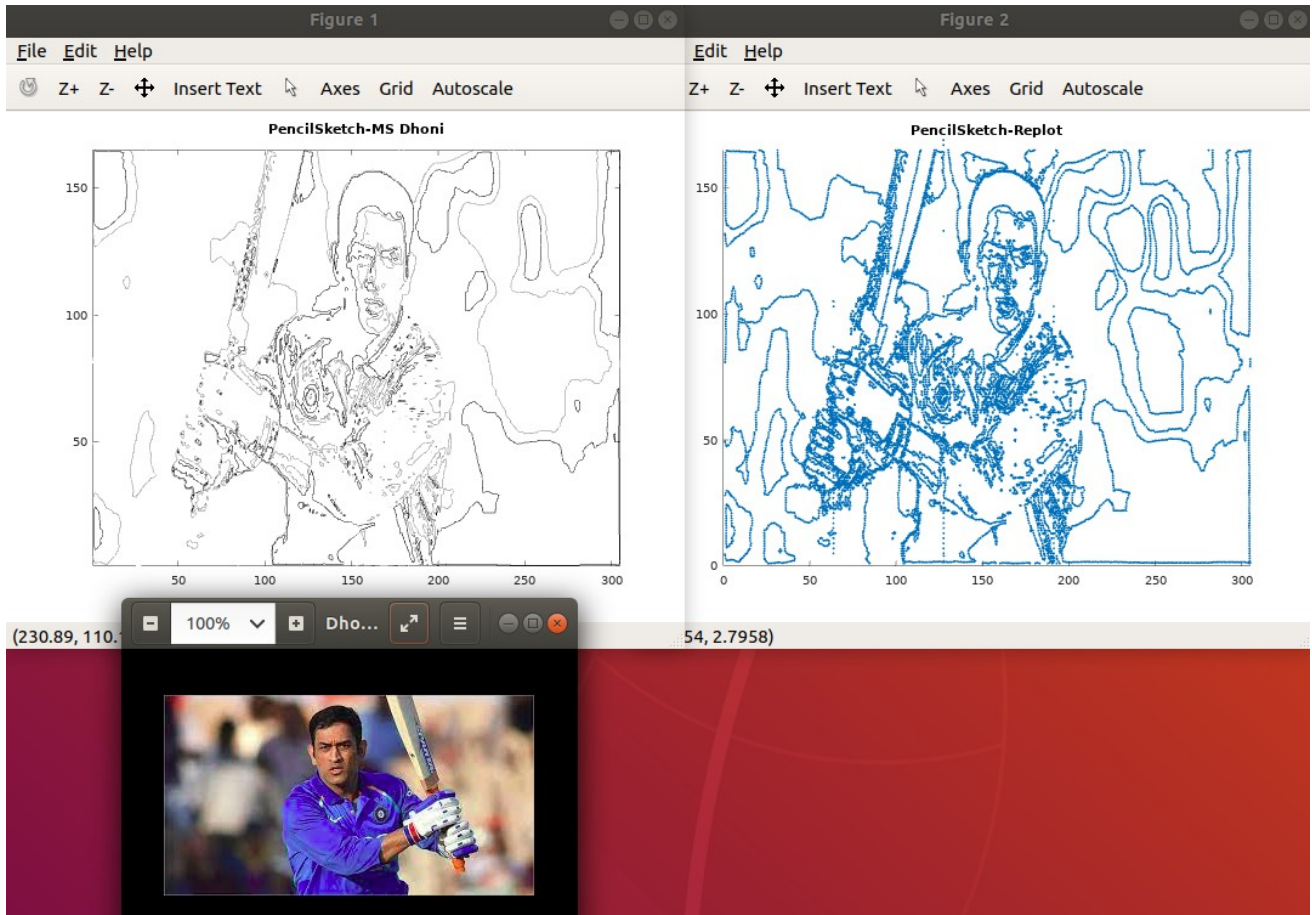


**ID2090**  
**ASSIGNMENT 5**  
**E PRAKATHISHWAR**  
**ME19B103**

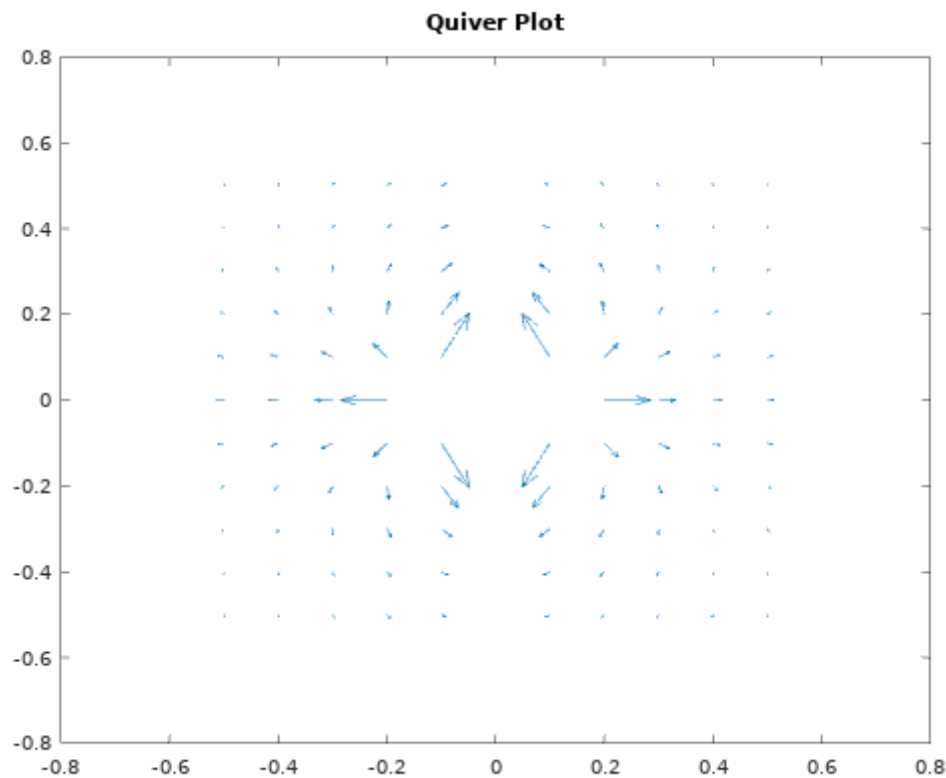
Q1)

Figures of Contour, Replot of Contour, Original Pic are shown below.



Q2)

Derivate is calculated in script itself with help of gradient function



Q3)

Output in Octave and Data stored in text file is shown below.

```
>> run Q3.m
ans = X = [1.1, 2.2, 3.3, 4.4, 5.5]
ans = S = 'Authentication code for this file is XzmBqr'
ans = P = {'A': 1.05, 'model': 'Avrami', 'system': 'sample binary', 'n': 4}
ans = Q = array([[1.1, 1.2, 1.3],
ans =      [2.1, 2.2, 2.3],
>> |
```



```
X = [1.1, 2.2, 3.3, 4.4, 5.5]
S = 'Authentication code for this file is XzmBqr'
P = {'A': 1.05, 'model': 'Avrami', 'system': 'sample binary', 'n': 4}
Q = array([[1.1, 1.2, 1.3],
           [2.1, 2.2, 2.3],
           [3.1, 3.2, 3.3]])
```

```
praks@praks: ~/notebook/Assignments/ME19B103-Assn5
File Edit View Search Terminal Help
praks@praks:~/notebook/Assignments/ME19B103-Assn5$ ./Q3test.py
('X = ', [1.1, 2.2, 3.3, 4.4, 5.5])
('S = ', 'Authentication code for this file is XzmBqr')
('P = ', {'A': 1.05, 'model': 'Avrami', 'system': 'sample binary', 'n': 4})
('Q = ', array([[1.1, 1.2, 1.3],
                [2.1, 2.2, 2.3],
                [3.1, 3.2, 3.3]]))
praks@praks:~/notebook/Assignments/ME19B103-Assn5$
```

Checking data with a python script