Result :-

1. **Using Gaussian Kernel:-**

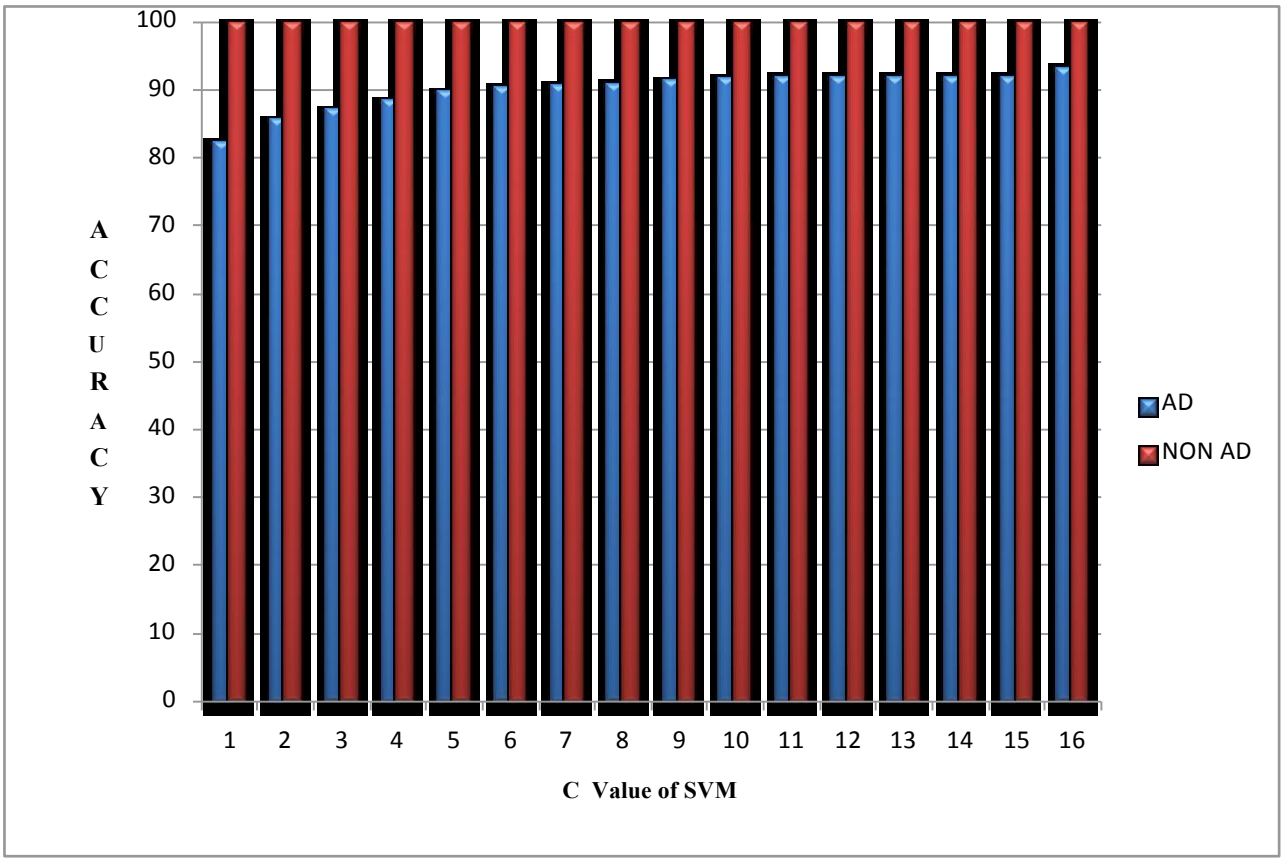
C	Training data results	Testing data results
1	Number of Correct AD Outputs = 378 Number of wrong AD Outputs = 81 Number of Correct Non-AD Outputs = 2338 Number of wrong Non-AD Outputs = 3	Number of Correct AD Outputs = 0 Number of wrong AD Outputs = 0 Number of Correct Non-AD Outputs = 477 Number of wrong Non-AD Outputs = 2
2	Number of Correct AD Outputs = 393 Number of wrong AD Outputs = 66 Number of Correct Non-AD Outputs = 2338 Number of wrong Non-AD Outputs = 3	Number of Correct AD Outputs = 0 Number of wrong AD Outputs = 0 Number of Correct Non-AD Outputs = 477 Number of wrong Non-AD Outputs = 2
3	Number of Correct AD Outputs = 400 Number of wrong AD Outputs = 59 Number of Correct Non-AD Outputs = 2338 Number of wrong Non-AD Outputs = 3	Number of Correct AD Outputs = 0 Number of wrong AD Outputs = 0 Number of Correct Non-AD Outputs = 475 Number of wrong Non-AD Outputs = 4
4	Number of Correct AD Outputs = 406 Number of wrong AD Outputs = 53 Number of Correct Non-AD Outputs = 2338 Number of wrong Non-AD Outputs = 3	Number of Correct AD Outputs = 0 Number of wrong AD Outputs = 0 Number of Correct Non-AD Outputs = 473 Number of wrong Non-AD Outputs = 6
5	Number of Correct AD Outputs = 412 Number of wrong AD Outputs = 47 Number of Correct Non-AD Outputs = 2340 Number of wrong Non-AD Outputs = 1	Number of Correct AD Outputs = 0 Number of wrong AD Outputs = 0 Number of Correct Non-AD Outputs = 473 Number of wrong Non-AD Outputs = 6
6	Number of Correct AD Outputs = 415 Number of wrong AD Outputs = 44 Number of Correct Non-AD Outputs = 2339 Number of wrong Non-AD Outputs = 2	Number of Correct AD Outputs = 0 Number of wrong AD Outputs = 0 Number of Correct Non-AD Outputs = 472 Number of wrong Non-AD Outputs = 7
7	Number of Correct AD Outputs = 416 Number of wrong AD Outputs = 43 Number of Correct Non-AD Outputs = 2339	Number of Correct AD Outputs = 0 Number of wrong AD Outputs = 0 Number of Correct Non-AD Outputs = 471

	Number of wrong Non-AD Outputs = 2	Number of wrong Non-AD Outputs = 8
8	Number of Correct AD Outputs = 418 Number of wrong AD Outputs = 41 Number of Correct Non-AD Outputs = 2339 Number of wrong Non-AD Outputs = 2	Number of Correct AD Outputs = 0 Number of wrong AD Outputs = 0 Number of Correct Non-AD Outputs = 471 Number of wrong Non-AD Outputs = 8
9	Number of Correct AD Outputs = 419 Number of wrong AD Outputs = 40 Number of Correct Non-AD Outputs = 2339 Number of wrong Non-AD Outputs = 2 91.29%	Number of Correct AD Outputs = 0 Number of wrong AD Outputs = 0 Number of Correct Non-AD Outputs = 471 Number of wrong Non-AD Outputs = 8 98.33%
10	Number of Correct AD Outputs = 421 Number of wrong AD Outputs = 38 Number of Correct Non-AD Outputs = 2339 Number of wrong Non-AD Outputs = 2 91.72%	Number of Correct AD Outputs = 0 Number of wrong AD Outputs = 0 Number of Correct Non-AD Outputs = 472 Number of wrong Non-AD Outputs = 7 98.54%
11	Number of Correct AD Outputs = 422 Number of wrong AD Outputs = 37 Number of Correct Non-AD Outputs = 2339 Number of wrong Non-AD Outputs = 2	Number of Correct AD Outputs = 0 Number of wrong AD Outputs = 0 Number of Correct Non-AD Outputs = 473 Number of wrong Non-AD Outputs = 6
12	Number of Correct AD Outputs = 422 Number of wrong AD Outputs = 37 Number of Correct Non-AD Outputs = 2339 Number of wrong Non-AD Outputs = 2	Number of Correct AD Outputs = 0 Number of wrong AD Outputs = 0 Number of Correct Non-AD Outputs = 472 Number of wrong Non-AD Outputs = 7
13	Number of Correct AD Outputs = 422 Number of wrong AD Outputs = 37 Number of Correct Non-AD Outputs = 2339 Number of wrong Non-AD Outputs = 2	Number of Correct AD Outputs = 0 Number of wrong AD Outputs = 0 Number of Correct Non-AD Outputs = 472 Number of wrong Non-AD Outputs = 7
14	Number of Correct AD Outputs = 422 Number of wrong AD Outputs = 37 Number of Correct Non-AD Outputs = 2339 Number of wrong Non-AD Outputs = 2	Number of Correct AD Outputs = 0 Number of wrong AD Outputs = 0 Number of Correct Non-AD Outputs = 472 Number of wrong Non-AD Outputs = 7
15	Number of Correct AD Outputs = 427	Number of Correct AD Outputs = 0

	Number of wrong AD Outputs = 32 Number of Correct Non-AD Outputs = 2338 Number of wrong Non-AD Outputs = 3	Number of wrong AD Outputs = 0 Number of Correct Non-AD Outputs = 472 Number of wrong Non-AD Outputs = 7
16	Number of Correct AD Outputs = 428 Number of wrong AD Outputs = 31 Number of Correct Non-AD Outputs = 2337 Number of wrong Non-AD Outputs = 4	Number of Correct AD Outputs = 0 Number of wrong AD Outputs = 0 Number of Correct Non-AD Outputs = 471 Number of wrong Non-AD Outputs = 8

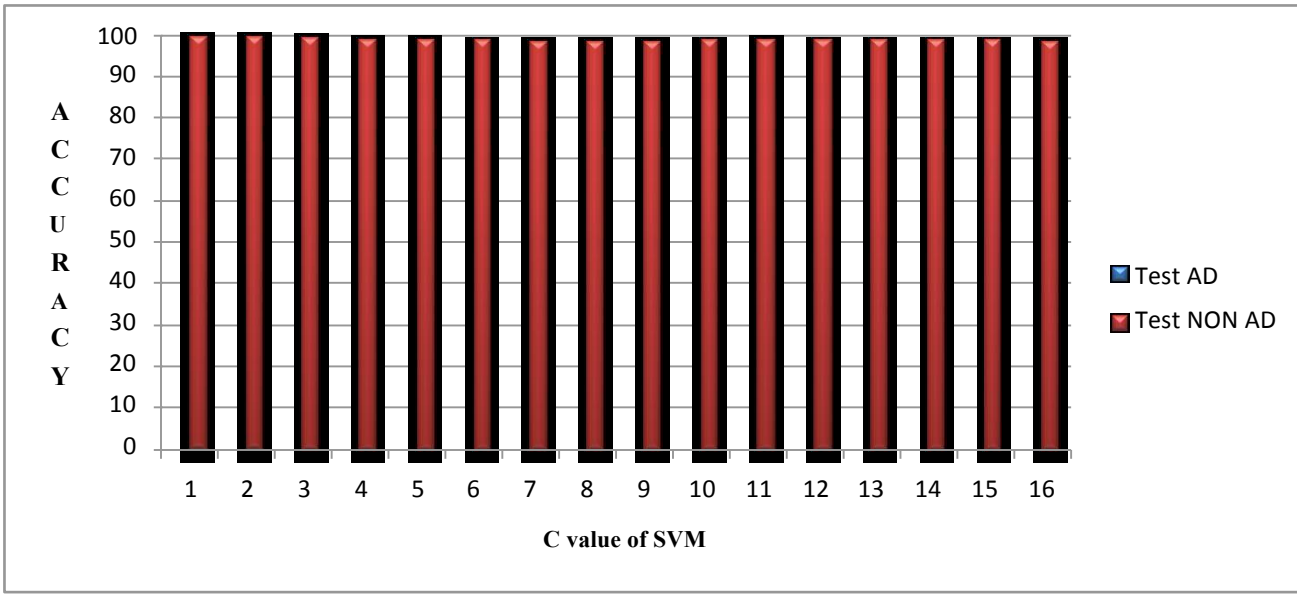
Table 1: Accuracy of Training & Testing data with varying C value using Gaussian Kernel

a. Training Data:-



Graph 1: Accuracy of Training data with varying C value using Gaussian Kernel

b. Testing Data:-



Graph 2: Accuracy of Test data with varying C value using Gaussian Kernel

2. **Using Linear Kernel:**

C	Training data results	Testing data results
1	Number of Correct AD Outputs = 426 Number of wrong AD Outputs = 33 Number of Correct Non-AD Outputs = 2337 Number of wrong Non-AD Outputs = 4	Number of Correct AD Outputs = 0 Number of wrong AD Outputs = 0 Number of Correct Non-AD Outputs = 470 Number of wrong Non-AD Outputs = 9
2	Number of Correct AD Outputs = 432 Number of wrong AD Outputs = 27 Number of Correct Non-AD Outputs = 2337 Number of wrong Non-AD Outputs = 4	Number of Correct AD Outputs = 0 Number of wrong AD Outputs = 0 Number of Correct Non-AD Outputs = 466 Number of wrong Non-AD Outputs = 13
3	Number of Correct AD Outputs = 435 Number of wrong AD Outputs = 24 Number of Correct Non-AD Outputs = 2337	Number of Correct AD Outputs = 0 Number of wrong AD Outputs = 0 Number of Correct Non-AD Outputs = 466

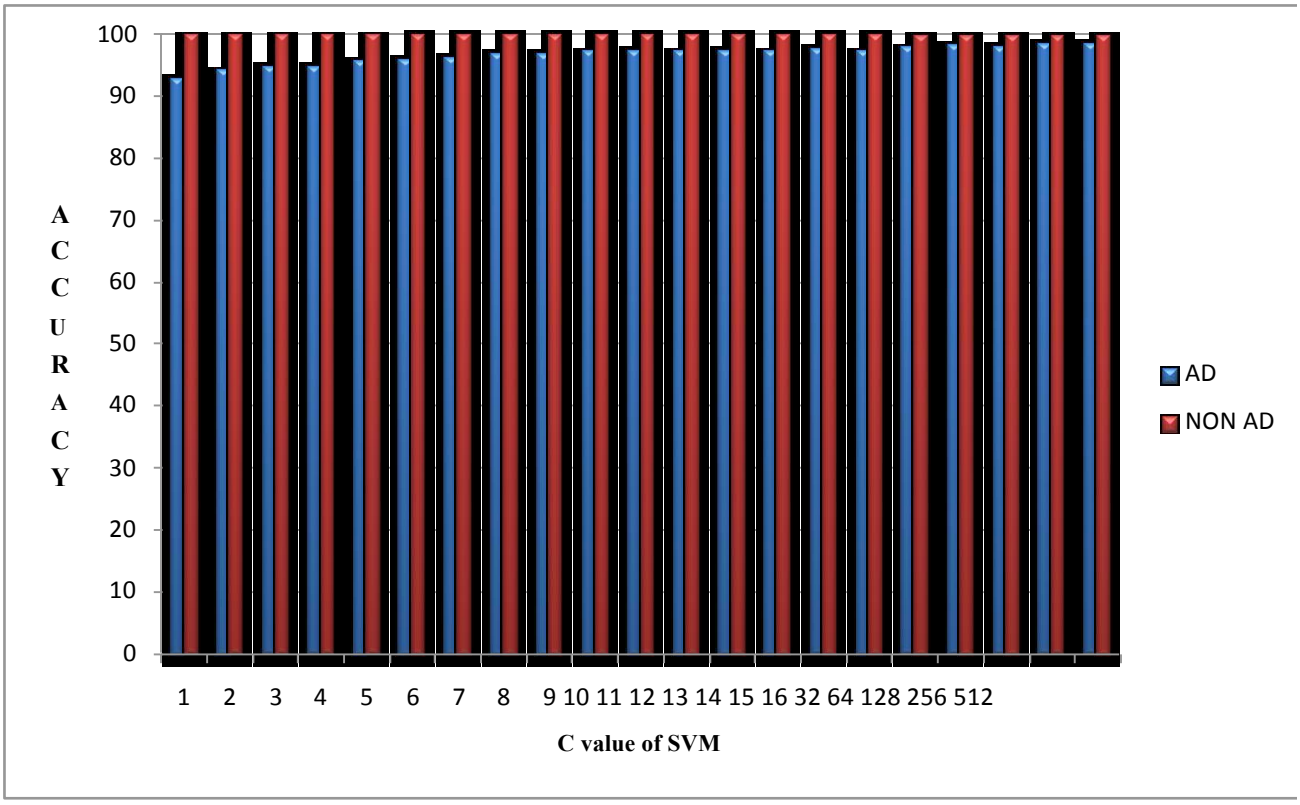
	Number of wrong Non-AD Outputs = 4	Number of wrong Non-AD Outputs = 13
4	Number of Correct AD Outputs = 435 Number of wrong AD Outputs = 24 Number of Correct Non-AD Outputs = 2337 Number of wrong Non-AD Outputs = 4	Number of Correct AD Outputs = 0 Number of wrong AD Outputs = 0 Number of Correct Non-AD Outputs = 463 Number of wrong Non-AD Outputs = 16
5	Number of Correct AD Outputs = 439 Number of wrong AD Outputs = 20 Number of Correct Non-AD Outputs = 2337 Number of wrong Non-AD Outputs = 4	Number of Correct AD Outputs = 0 Number of wrong AD Outputs = 0 Number of Correct Non-AD Outputs = 461 Number of wrong Non-AD Outputs = 18
6	Number of Correct AD Outputs = 440 Number of wrong AD Outputs = 19 Number of Correct Non-AD Outputs = 2338 Number of wrong Non-AD Outputs = 3	Number of Correct AD Outputs = 0 Number of wrong AD Outputs = 0 Number of Correct Non-AD Outputs = 462 Number of wrong Non-AD Outputs = 17
7	Number of Correct AD Outputs = 442 Number of wrong AD Outputs = 17 Number of Correct Non-AD Outputs = 2339 Number of wrong Non-AD Outputs = 2	Number of Correct AD Outputs = 0 Number of wrong AD Outputs = 0 Number of Correct Non-AD Outputs = 461 Number of wrong Non-AD Outputs = 18
8	Number of Correct AD Outputs = 444 Number of wrong AD Outputs = 15 Number of Correct Non-AD Outputs = 2339 Number of wrong Non-AD Outputs = 2	Number of Correct AD Outputs = 0 Number of wrong AD Outputs = 0 Number of Correct Non-AD Outputs = 461 Number of wrong Non-AD Outputs = 18
9	Number of Correct AD Outputs = 444 Number of wrong AD Outputs = 15 Number of Correct Non-AD Outputs = 2339 Number of wrong Non-AD Outputs = 2	Number of Correct AD Outputs = 0 Number of wrong AD Outputs = 0 Number of Correct Non-AD Outputs = 461 Number of wrong Non-AD Outputs = 18

10	Number of Correct AD Outputs = 446 Number of wrong AD Outputs = 13 Number of Correct Non-AD Outputs = 2338 Number of wrong Non-AD Outputs = 3	Number of Correct AD Outputs = 0 Number of wrong AD Outputs = 0 Number of Correct Non-AD Outputs = 459 Number of wrong Non-AD Outputs = 20
11	Number of Correct AD Outputs = 447 Number of wrong AD Outputs = 12 Number of Correct Non-AD Outputs = 2338 Number of wrong Non-AD Outputs = 3	Number of Correct AD Outputs = 0 Number of wrong AD Outputs = 0 Number of Correct Non-AD Outputs = 462 Number of wrong Non-AD Outputs = 17
12	Number of Correct AD Outputs = 446 Number of wrong AD Outputs = 13 Number of Correct Non-AD Outputs = 2338 Number of wrong Non-AD Outputs = 3	Number of Correct AD Outputs = 0 Number of wrong AD Outputs = 0 Number of Correct Non-AD Outputs = 461 Number of wrong Non-AD Outputs = 18
13	Number of Correct AD Outputs = 447 Number of wrong AD Outputs = 12 Number of Correct Non-AD Outputs = 2338 Number of wrong Non-AD Outputs = 3	Number of Correct AD Outputs = 0 Number of wrong AD Outputs = 0 Number of Correct Non-AD Outputs = 462 Number of wrong Non-AD Outputs = 17 96.45%
14	Number of Correct AD Outputs = 446 Number of wrong AD Outputs = 13 Number of Correct Non-AD Outputs = 2338 Number of wrong Non-AD Outputs = 3	Number of Correct AD Outputs = 0 Number of wrong AD Outputs = 0 Number of Correct Non-AD Outputs = 462 Number of wrong Non-AD Outputs = 17
15	Number of Correct AD Outputs = 448 Number of wrong AD Outputs = 11 Number of Correct Non-AD Outputs = 2338 Number of wrong Non-AD Outputs = 3	Number of Correct AD Outputs = 0 Number of wrong AD Outputs = 0 Number of Correct Non-AD Outputs = 462 Number of wrong Non-AD Outputs = 17
16	Number of Correct AD Outputs = 446 Number of wrong AD Outputs = 13 Number of Correct Non-AD Outputs =	Number of Correct AD Outputs = 0 Number of wrong AD Outputs = 0 Number of Correct Non-AD Outputs

	2338 Number of wrong Non-AD Outputs = 3	= 461 Number of wrong Non-AD Outputs = 18
32	Number of Correct AD Outputs = 449 Number of wrong AD Outputs = 10 Number of Correct Non-AD Outputs = 2334 Number of wrong Non-AD Outputs = 7	Number of Correct AD Outputs = 0 Number of wrong AD Outputs = 0 Number of Correct Non-AD Outputs = 459 Number of wrong Non-AD Outputs = 20
64	Number of Correct AD Outputs = 451 Number of wrong AD Outputs = 8 Number of Correct Non-AD Outputs = 2334 Number of wrong Non-AD Outputs = 7	Number of Correct AD Outputs = 0 Number of wrong AD Outputs = 0 Number of Correct Non-AD Outputs = 458 Number of wrong Non-AD Outputs = 21
128	Number of Correct AD Outputs = 450 Number of wrong AD Outputs = 9 Number of Correct Non-AD Outputs = 2335 Number of wrong Non-AD Outputs = 6	Number of Correct AD Outputs = 0 Number of wrong AD Outputs = 0 Number of Correct Non-AD Outputs = 459 Number of wrong Non-AD Outputs = 20
256	Number of Correct AD Outputs = 452 Number of wrong AD Outputs = 7 Number of Correct Non-AD Outputs = 2332 Number of wrong Non-AD Outputs = 9	Number of Correct AD Outputs = 0 Number of wrong AD Outputs = 0 Number of Correct Non-AD Outputs = 458 Number of wrong Non-AD Outputs = 21
512	Number of Correct AD Outputs = 452 Number of wrong AD Outputs = 7 Number of Correct Non-AD Outputs = 2333 Number of wrong Non-AD Outputs = 8	Number of Correct AD Outputs = 0 Number of wrong AD Outputs = 0 Number of Correct Non-AD Outputs = 455 Number of wrong Non-AD Outputs = 24

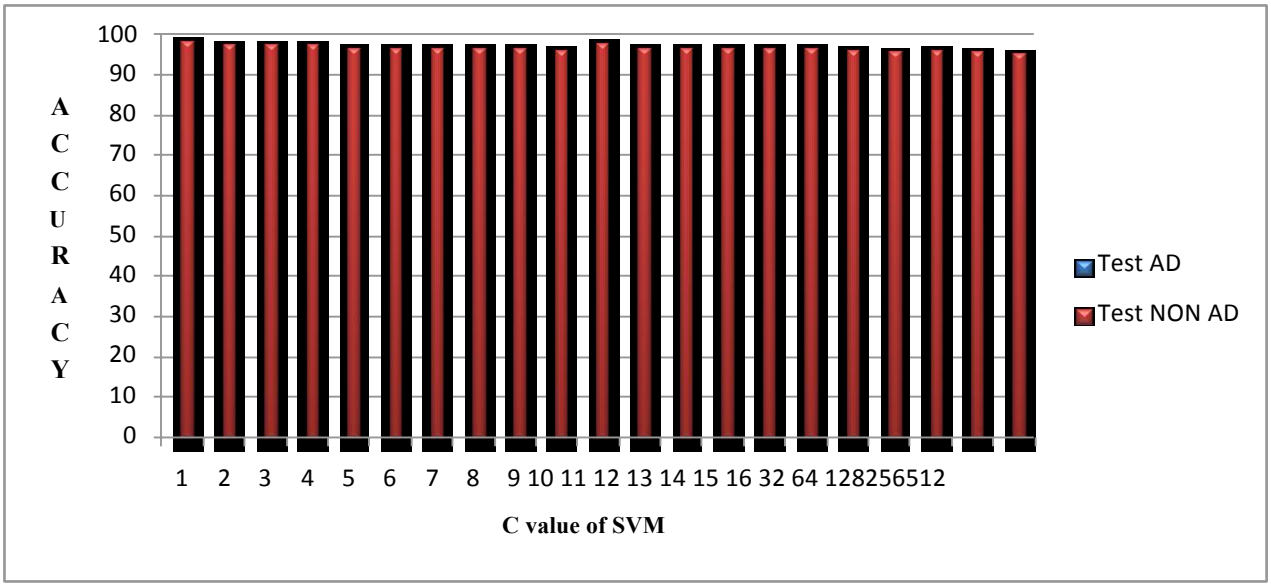
Table 2: Accuracy of Training & Testing data with varying C value using Linear Kernel

a. Training Data:-



Graph 3: Accuracy of Training data with varying C value using Linear Kernel

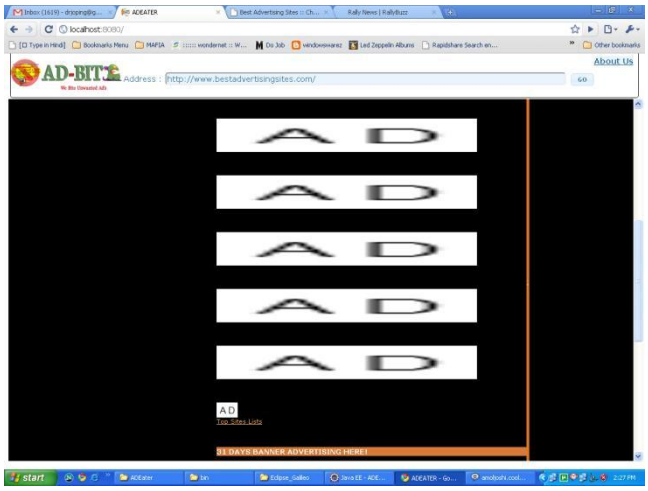
b. Testing Data:-



Graph 4: Accuracy of Test data with varying C value using Linear Kernel

5.2 User Interface Screenshots

Website filtered using SVM **Actual Website**



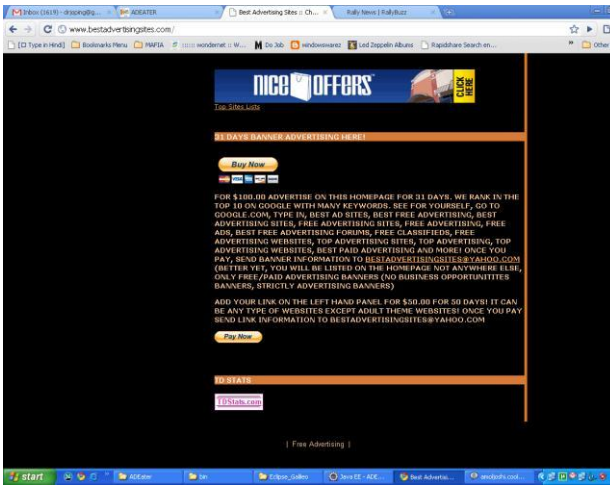


Figure 14: Screenshots

Conclusion

The results obtained from our Support Vector Machine are closer to the actual results. The errors observed are decreasing with every pass. So we can use this implementation as a "Rule Learner" in our project

The module " dvertisement Remover" of our project to which users are exposed as the browsing assistant that removes advertisements from Internet pages as they are fetched. Candidate advertisements are identified in fetched pages. The learned rules are then consulted to classify each example as AD, Non AD. Advertisements are then removed from the Internet page by replacing U_{img} (the image's URL) with the URL of an inconspicuous low-bandwidth image.

Future Scope

The " dvertisement Remover" module is to be implemented as a proxy server. In that rowser requests are passed to the " dvertisement Remover" System, which forwards the requested URL to the destination, and replaces the U_{img}'s in the returned HTML files as appropriate.

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