**EX:**

Write a script file that does the following:

i) Creates arrays called `x_values` and `y_values` containing the following data:

| `x_values`: | 1 | 2 | 3 | 4 |
|---|---|---|---|---|
| `y_values`: | cos(1/100) | cos(2/100) | cos(3/100) | cos(4/100) |

ii) Plots the data points as red circles on an *x*-*y* plot.

iii) Labels the *x*-axis as "x" and the *y*-axis as "y". (Note that the labels do not include the quote marks.)

iv) Labels the title of the plot as "Cosine Approximation".

v) Shows a quadratic fit of the data on the plot as a black line.

**SOL'N:** i)
```
x_values = 1:4;
y_values = cos(x_values/100);
```
ii)
```
plot(x_values, y_values, 'ro')
```
iii)
```
xlabel('x')
ylabel('y')
```
iv)
```
title('Cos Approximation')
```
v)
```
hold on
a = polyfit(x_values,y_values,2);
yfit = polyval(a,x_values);
plot(x_values,yfit,'k-')
hold off
```