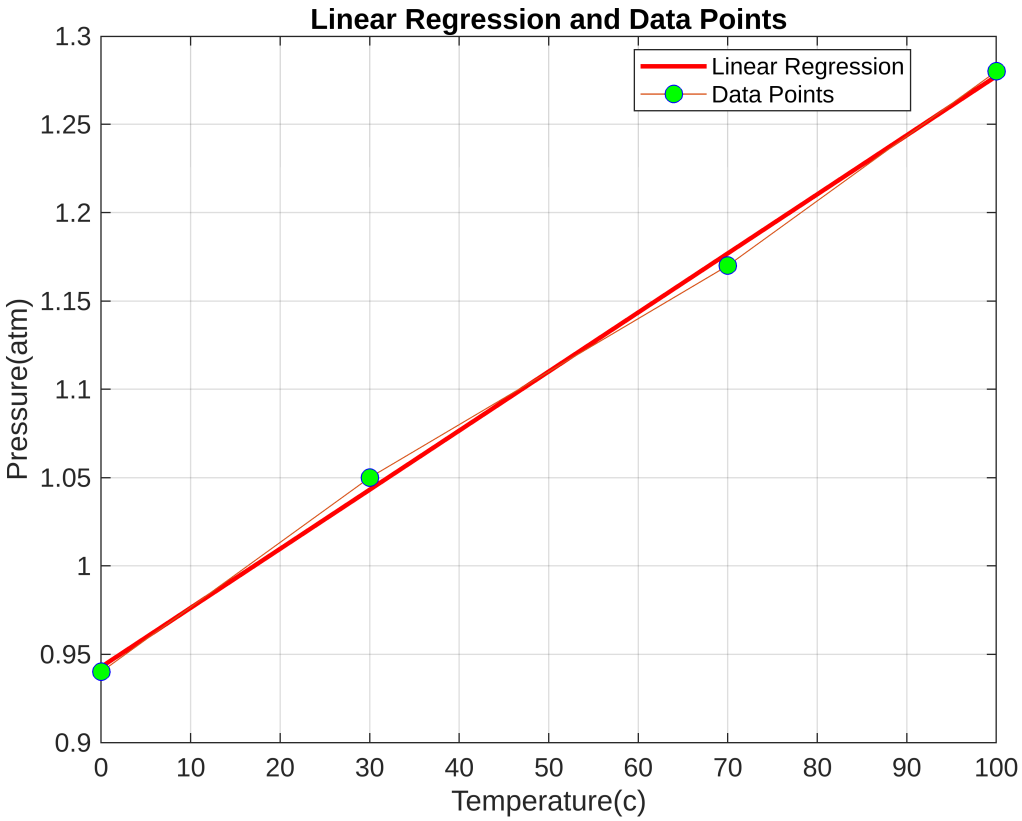
```
sym x
```

```
ans = x
```

Case study 01, Predication of pressure on given temperature.

```
% Data
x = [0, 30, 70, 100];
a_1 = 0.003345;
a_0 = 0.9428;
y_2 = a_1 * x + a_0;

y = [0.94, 1.05, 1.17, 1.28];

% Plotting
figure;

% Plot the line
plot(x, y_2, 'r', 'LineWidth', 2);
hold on;

% Plot the markers
plot(x, y, '-o', 'MarkerSize', 8, 'MarkerEdgeColor', 'b', 'MarkerFaceColor',
'g');

% Title and labels
title('Linear Regression and Data Points');
xlabel('Temperature(c)');
ylabel('Pressure(atm)');

% Legend
legend('Linear Regression', 'Data Points', 'Location', 'Best');

% Grid
grid on;

% Adjusting figure properties
set(gca, 'FontSize', 12);
```




```
y
```

```
y = 1×4
    0.9400    1.0500    1.1700    1.2800
```

```
y_2
```

```
y_2 = 1×4
    0.9428    1.0432    1.1769    1.2773
```

Error

```
% Data
x = [0, 30, 70, 100];
a_1 = 0.003345;
a_0 = 0.9428;
y_2 = a_1 * x + a_0;

y = [0.94, 1.05, 1.17, 1.28];

% Calculate the error
 abs(y_2 - y)
```

```
ans = 1×4
    0.0028    0.0069    0.0070    0.0027
```