# Cover Letter

December 1st, 2015

Dear Sir,

I have submitted this proposal regarding our semester project of the third year first semester for your review. This document is for the partial fulfillment of Computer Project (COMP 311) as per the requirement. Within this proposal, you will find the following supporting documents geared toward your requests:

* Introduction to the project
* Requirements
* System Descriptions

Thank you.

Sincerely,

Sujal Kokh Shrestha

# Acknowledgement

I am very thankful to the Department of Computer Science and Engineering for including this project as a part of the course plan. Assigning the students to perform project assures that one learns the basics of other study related topics that will help in the course-related topics as well. This project, as I hope, will also help to maintain a sound relationship between the students and the project coordinator. I would also like to thank our teachers who have taught us all the necessary courses that will help me in the successful completion of the project.

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# Introduction

## Background

Artificial Intelligence (AI) is one of the trending and interesting field in computer science. The main objective of the term “Artificial Intelligence” to create a machine that is intelligent and can decide to choose a appropriate decision with the data it gets. This doesn’t means only for the development of the robots that are intelligent with sensors. Software can also be designed to act intelligent. Different theories and algorithms are developed for the AI purpose which can be used to design an application that can act intelligent. With the use of appropriate language and different models the intelligent can be developed. (i.e a cow farm is fully automated by machines to clean, get milk from cows, provide food for cows and other purposes.)

## Problem

As the term AI seems interesting it is not easy to create an application that is intelligent on its own. A computer is just a dull machine, where we need to program it and create it intelligent. Creating a dull machine intelligent is not easy. In the project the game is played by the user and the computer. The decisions done by user can be easily manipulated. The major problem is to program the computer to take the decision which is appropriate, effective and feasible.

## Solution

The solution for the development of an intelligent machine is to study the different principles of Artificial intelligence and use it for the coding of the machine to perform the required task. In the game “dotline” the machine (i.e. computer) should view the input from the user and then do the analysis work, then produce the output to choose an appropriate decision and perform the decision.

# Objectives

The objectives of the project are listed below:

* To understand the concept of Artificial Intelligence.
* To understand the mathematics behind the Artificial Intelligence.
* To learn programming for developing intelligent applications
* To understand the usage of AI.
* To view the scope of AI.

# 

# Requirements

## Development Requirements

### Hardware Requirements

* A modern PC to for programming purpose.
* Processor: i5
* RAM: 4 GB
* Minimum memory of 16GB.

### Software requirement

* Python 2.7.10 or 3 for programming.
* Tkinter or vPython for user interface design.
* Windows 7 or higher(Windows 8,Windows 8.1, Windows 10)

# System Description

The application will offer following features to the user:

* A Graphical User interface for user to play the game.
* Use of mouse for the input from the user.
* Competitive decision from the computer.

## Programming Language/ Tools

* Python 2.7.10 or 3
* vPython or Tkinter

## Interface

The user interface will be user friendly and easy to use. The application will help the user to play the game with the help of mouse. User will have to click the mid places to create the line. The one to make the square box gets the box and the point.

# Gantt chart

The work that is to be done within the 10 weeks is shown in Gantt chart.

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Task** | **Description / Weeks** | **1** | **2** | **3** | **4** | **5** | **6** | | **7** | | | **8** | | **9** | | | **10** | |
| **1.** | **Case Study** |  |  |  |  |  |  | |  | | |  | |  | | |  | |
| **2.** | **Design (Algorithm & Flowchart)** |  |  |  |  |  |  | |  | | |  | |  | | |  | |
| **3.** | **Implementation (Coding)** |  |  |  |  |  |  | |  | | |  | |  | | |  | |
| **4.** | **Mid-Term Report** |  |  |  |  |  |  | |  | | |  | |  | | |  | |
| **5.** | **Coding** |  |  |  |  |  |  | |  | | |  | |  | | |  | |
| **7.** | **Final Report** |  |  |  |  |  |  | |  | | |  | |  | | |  | |
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# Conclusion

The field “Artificial Intelligence” has a lot of applications in current world. AI can be used for finger print, face reorganization, digital number plate, and automation of any factory, transportation, robotics and gaming. With the development of the application, it will help for understanding the concepts of artificial intelligence and to develop a game that can be played with the computer.