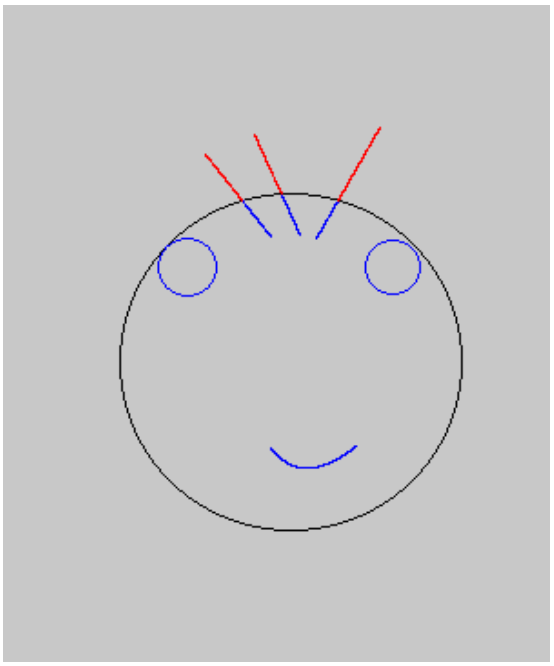
Task1

- ***Input:***

  Use the mouth clicks to control user input, please follow the below order in taking input

  1. First two clicks for drawing circle window
  2. 2 Clicks for first small circle (Right Eye of the shape)
  3. 2 Clicks for second small circle (left Eye of the shape)
  4. 3 clicks for **quadratic curve** (Shape's Smile)
  5. 2 clicks for line1(Hair of the shape)
  6. 2 clicks for line 2(Hair of the shape)
  7. 2 clicks for line 3(Hair of the shape)

- ***Note***: Mark any portion of the shapes inside the window (circle) with blue otherwise will be red Mainly we are focus on two points
  1. clipping line using circle as a clipping window
  2. Derivation and implementation of quadratic curve
- ***Output***: a Window (circle) with marked shapes
- ***Hint:*** Use any algorithm for line, circle, curve and clipping process



Task2

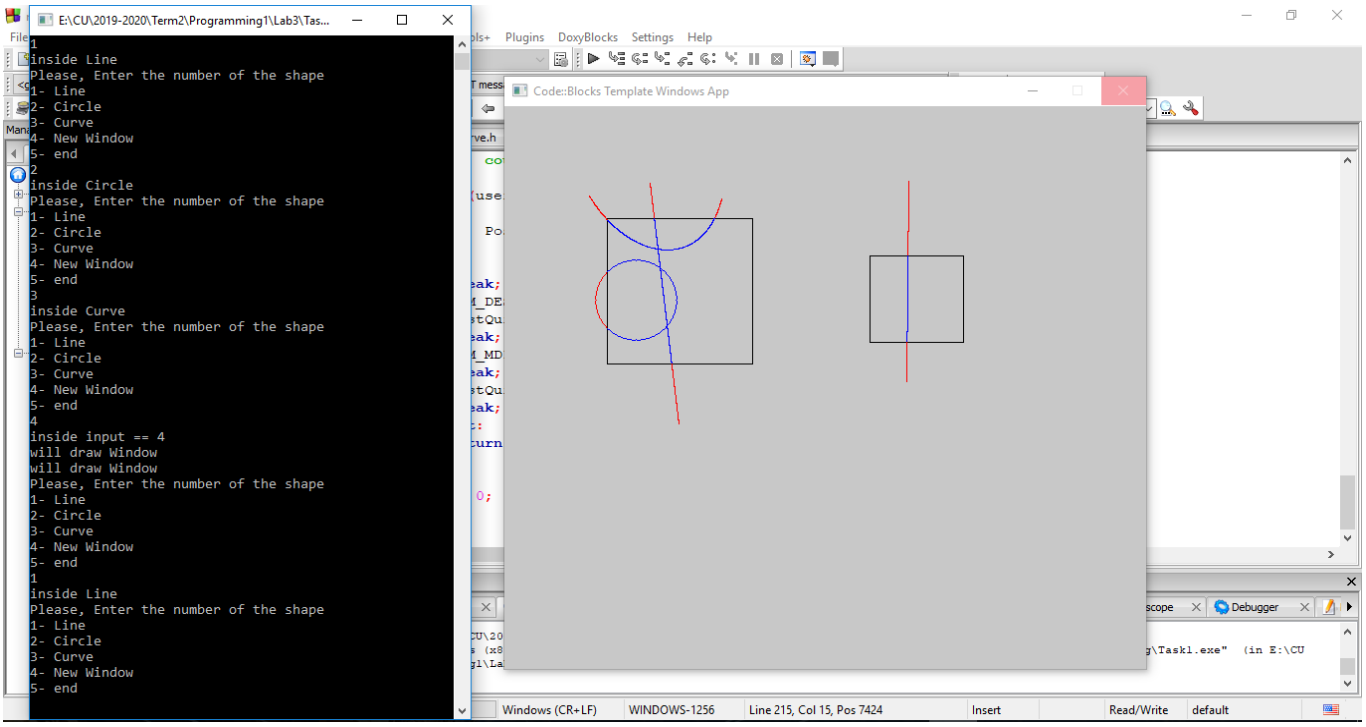
- In this task, you will use a combination between window application and console application.
- ***Input:***

  Use the mouth clicks to control user input, please follow the below order in taking input

  First two clicks for drawing rectangle window after that a menu will appear in console has **5 options:**

  - 1 -> for line drawing, so you will enter 2 mouth clicks.
  - 2 -> for circle drawing, so you will enter 2 mouth clicks.
  - 3 -> for **cubic curve** drawing, so you will enter 4 mouth clicks.
  - 4 -> for new window (rectangle) drawing, so you will enter 2 two mouth clicks.
  - 5 -> To close WindowApp.

- ***Note***: **Mark any portion of the shapes inside the window (rectangle) with blue otherwise will be red**
  1. We focus on clipping circles, lines and cubic curves by using a rectangle clipping window
- ***Output***: a Window (rectangle) with marked shapes
- ***Hint:*** Use any algorithm for line, circle, curve and clipping process.



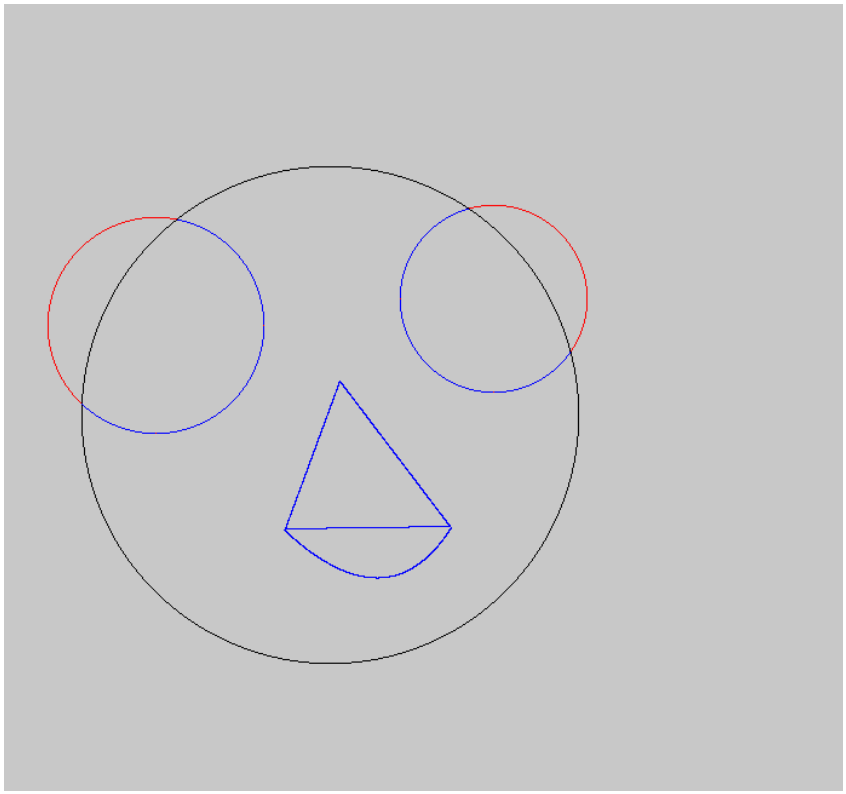
Task3

- ***Input:***

  Use the mouth clicks to control user input, please follow the below order in taking input

  1. First two mouth clicks for drawing circle window
  2. 2 Clicks for first small circle (Right Eye of the shape)
  3. 2 Clicks for second small circle (left Eye of the shape)
  4. 3 clicks for **quadratic curve** (Shape's Smile)
  5. 3 points for triangle (Shape's nose)

- ***Note***: Mark any portion of the shapes inside the window (circle) with blue otherwise will be red Mainly we are focus on two points
  1. clipping circle using other circle clipping window
  2. Derivation and implementation of quadratic curve
- ***Output***: a Window (circle) with marked shapes
- ***Hint:*** Use any algorithm to draw line, circle, curve and clipping process



Task4

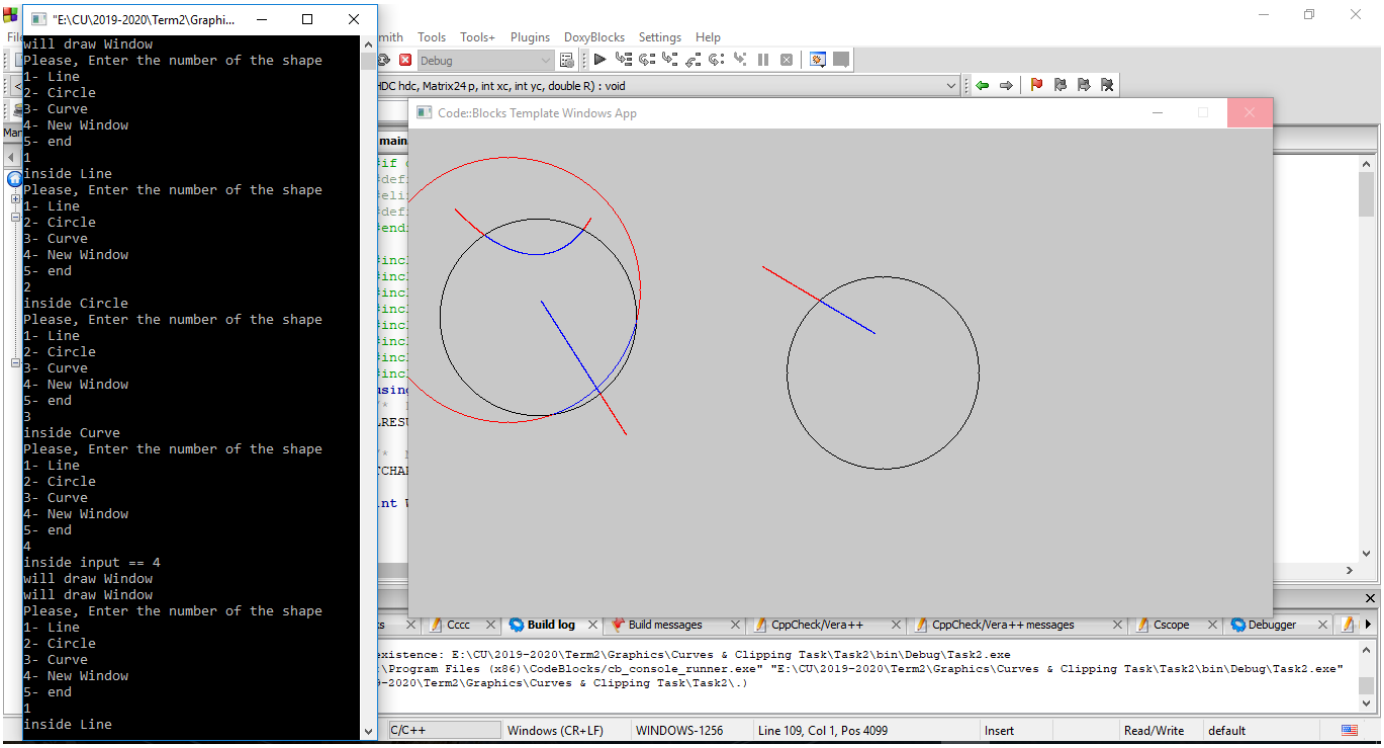
- In this task, you will use a combination between window application and console application.
- ***Input:***

Use the mouth clicks to control user input, please follow the below order in taking input

First two mouth clicks for drawing Circle window after that a menu will appear in console has **5 options:**

- 1 -> for line drawing, so you will enter 2 mouth clicks.
- 2 -> for circle drawing, so you will enter 2 mouth clicks.
- 3 -> for **cubic curve** drawing, so you will enter 4 mouth clicks.
- 4 -> for new window (Circle) drawing, so you will enter 2 mouth clicks.
- 5 -> To close WindowApp..

- ***Note***: **Mark any portion of the shapes inside the window (circle) with blue otherwise will be red**
  1. We focus on clipping circles, lines and cubic curves by using a circle clipping window
- ***Output***: a Window (circle) with marked shapes
- ***Hint***: Use any algorithm for line, circle, curve and clipping process



Task5

- ***Input:***

  Use the mouth clicks to control user input, please follow the below order in taking input

  1. 4 Mouth clicks for drawing first cubic curve.
  2. 4 Mouth clicks for drawing second cubic curve.
  3. Draw a line between first points related to first and second curve
  4. Draw a line between fourth points related to first and second curves.

- ***Note***: Mark any portion of the shapes inside the window (Rectangle) with blue otherwise will be red
  1. We focus on clipping polygon consists of lines and curves using rectangle clipping window

- ***Output***: a Window (Rectangle) with marked shapes
- ***Hint:*** Use any algorithm to draw line, curve and clipping process