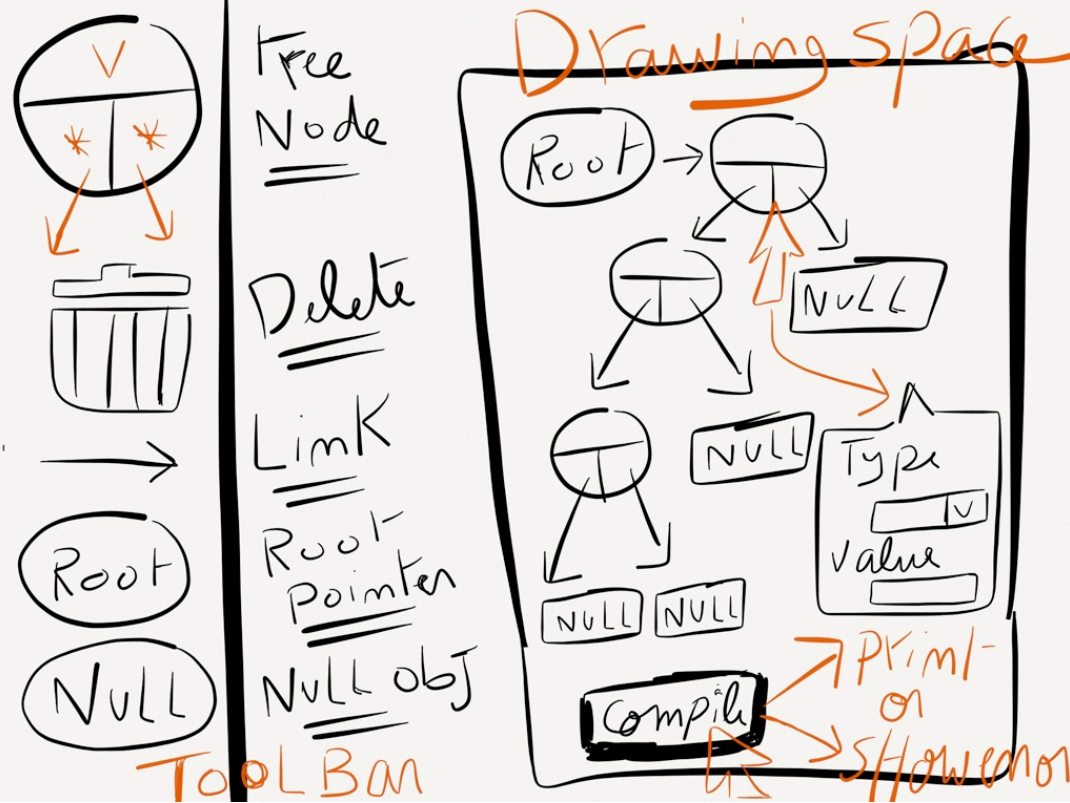


<p>Title</p>	<p style="text-align: center;">Windows Based - BST Builder</p> 
<p>Description</p>	<p>BST Builder is a GUI (Graphical User Interface) based Application responsible for Building BST.</p> <p>User must be able to Draw the BST, and then Click on the Compile Button which prints the Drawn BST in case of no error, otherwise show errors.</p> <p>User Interface must include:</p> <p>Tool Bar whose items are:</p> <ul style="list-style-type: none"> • Tree Node Item: For BST Construction. User drags and drops it to build a Node. • Delete Item: Allows user to Delete any drawn Object such as Root Pointer, Node, Right and Left Pointers, ... User will select Delete Item, select any drawn Object, and then a confirmation message will be displayed for deleting the selected drawn Object. • Pointer Item: Allows user to point Root to Nodes, or Parent Nodes to Child Nodes. User will select Pointer Item, mouse down on Root or Node to start the link, mouse up on another Node to stop the link.



	<ul style="list-style-type: none"> • Root Item: Root is placed on Drawing Space to be linked to the Top Most Node. When placed, Root Item must be disabled (force user not to place more than one Root item). • NULL Item: If user wants to link a Node's Right or Left pointer to NULL. <p>Drawing Space:</p> <ul style="list-style-type: none"> • User will select any Node on Drawing Space to edit node's Data Value and node's Data Type which means that Generic Template is a Must. Data Value field is a Text Box, Data Type field is a Combo Box (predefined types). • Compile button to print the Built BST in case of no error, otherwise print errors. • Drawing Space must be as flexible as possible, for example, when moving a Node, it's link must be stretched with it, and so on... • Validate everything, for example, user can't set Nodes with Different Data Types.
Group size	3-4.
Deliverables	2-3 Weeks.
Bonus extensions	Any non-trivial updates are accepted as Bonus. Any user experience enhancements are accepted as Bonus.
Mentor	T.A. Mourad Aly.
Notes	Windows Based Application tutorial is needed.