**Code Optimization**

* The code optimization in the synthesis phase is a program transformation technique, which tries to improve the intermediate code by making it consume fewer resources (i.e. CPU, Memory) so that faster-running machine code will result.

**Before Code Optimization**

The purpose of this optimization for decrease the load to the server.

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**After Code Optimization**

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**Another Example**

**Optimization for image:**

//Get the Bulk of images as per unit ids

 function get\_unit\_images\_bulk\_backup($arr\_unit\_ids)

 {

 $str\_unit\_ids = implode(',', $arr\_unit\_ids);

 if (!fun::is\_empty($str\_unit\_ids))

 {

 //SQL query for get images

 $str\_sql = "SELECT \* FROM " . DB\_PREFIX . "unit\_images WHERE is\_deleted=0 AND unit\_id IN ($str\_unit\_ids) ORDER BY sort\_order,filename ASC";

 $rs = $this->db->Execute($str\_sql);

 $counter = 0;

 $this->\_total\_records = $this->db->get\_FOUND\_ROWS();

 $this->arr\_images = array();

 while ($rs->MoveNext())

 {

 $url = $rs->file\_location . $rs->filename;

 $thumbnail = $rs->file\_location . 'thumbnail/' . $rs->filename;

 if (\_PROJECT\_MODE == 'LOCAL' && !file\_exists(UPLOADS\_FS\_DIR . $url))

 {

 $url = LOCAL\_DEV\_IMAGE\_UPLOAD . $url;

 $thumbnail = LOCAL\_DEV\_IMAGE\_UPLOAD . $thumbnail;

 }

 else

 {

 $url = WS\_RIDE\_DIGITAL . $url;

 $thumbnail = WS\_RIDE\_DIGITAL . $thumbnail;

 }

 $this->arr\_images[$rs->unit\_id][]= array(

 'image\_id' => $rs->image\_id,

 'unit\_id' => $rs->unit\_id,

 'sort\_order' => $rs->sort\_order,

 'image\_title' => $rs->image\_title,

 'url' => $url,

 'thumbnail' => $thumbnail

 );

 }

 }

 }