Save Reset Print

Name(s):

Course & Selection:

Identifier:

Client:

Chapter 06: **Production**

Exercise 06-02: **Basic Production Process**

Single Company Code

Version 1

Rev: 01/03/2011

Introduction

General Notes and Information

It is strongly recommended that you read through the entire exercise prior to starting. Not all instructions can be provided in a linear manner.

The following symbols are used to indicate important information, as described below.

- An arrow highlights an important instruction that must not be overlooked.
- A text box prompts you to write down an important piece of information.

Each student or group will be assigned a unique **three-digit identifier**. This identifier is used in all exercises to uniquely identify your data. Whenever you see **###** in these exercises, replace it with your identifier.

- Always work with your data.

Business Process Overview

GBI uses the production process to manufacture the goods the company needs to fill orders, or increase inventory after it has filled an order.

In this exercise you will go through the production process to produce 10 Deluxe Touring Bikes and place them in inventory for later use.

Exercise Prerequisites

Exercise 6-1 GBI Review Production Master Data-SCC
Review the bill of materials at the end of this document

Exercise Workflow

Exercise Deliverables

Deliverables are consolidated into one worksheet at the end of this exercise. For this exercise you will need the following deliverables.

In the System:

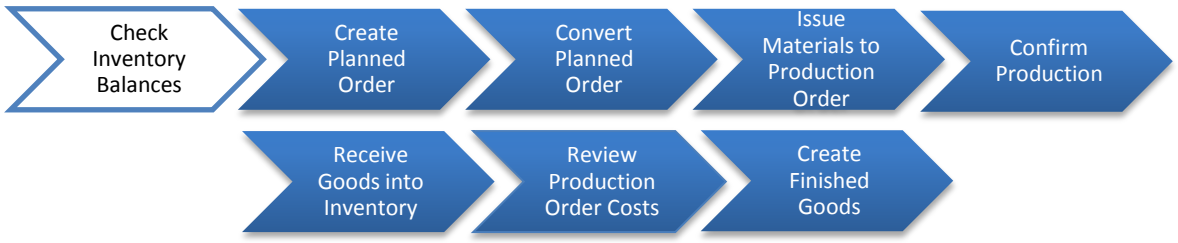
- ☑ Create initial inventory balances
- ☑ Create planned orders
- ☑ Convert planned orders
- ☑ Issue materials
- ☑ Confirm production
- ☑ Receive the goods
- ☑ Review accounting info

On paper:

- ☑ Completed exercise worksheet (attachment 1) to turn in to your professor.
- ☑ Answers to the Questions

- You may be assigned additional deliverables. Make certain to check with your instructor.

Step 1: Check Inventory Balances



In this step we will determine if we have the required raw materials to produce ten Deluxe Touring Bikes (red) and then create the raw materials we need with "inventory from heaven."

Step 1.1: The table below shows the Bill of Material required for one Deluxe Touring Bike (red). Be sure to get the correct amount of materials.

- Review Exercise 6-1 to review inventory balances

Item	Material	Quantity for 1 bike	Quantity for 10 bikes
Touring Frame-Red	TRFR3###	1	10-1
Derailleur Gear Assembly	DGAM1###	1	10-2
Touring Seat Kit	TRSK1###	1	10-3
Touring Handle Bar	TRHB1###	1	10-4
Pedal Assembly	PEDL1###	1	10-5
Chain	CHAN1###	1	10-6
Brake Kit	BRKT1###	1	10-7
Touring Tire	TRTR1###	2	20-8
Touring Tube	TRTB1###	2	20-9
Touring Aluminum Wheel	TRWH1###	2	20-10
Hex Nut 5 MM	HXNT1###	2	20-11
Lock Washer 5 MM	LWSH1###	4	40-12
Socket Head Bolt 5X20 MM	BOLT1###	2	20-13

Packaging	PCKG1###	1	10-14
Warranty Document	WDOC1###	1	10-15

Step 1.2: Review the inventory balance (MMBE) in Exercise 6-1. Then, fill out the following table with (1) the quantity of material you have and (2) the quantity you still need in order to produce 10 Deluxe Touring Bikes (red).

Item	Material	Current Quantity	Quantity Needed to Create
Touring Frame-Red	TRFR3###		
Derailleur Gear Assembly	DGAM1###		
Touring Seat Kit	TRSK1###		
Touring Handle Bar	TRHB1###		
Pedal Assembly	PEDL1###		
Chain	CHAN1###		
Brake Kit	BRKT1###		
Touring Tire	TRTR1###		
Touring Tube	TRTB1###		
Touring Aluminum Wheel	TRWH1###		
Hex Nut 5 MM	HXNT1###		
Lock Washer 5 MM	LWSH1###		
Socket Head Bolt 5X20 MM	BOLT1###		
Packaging	PCKG1###		
Warranty Document	WDOC1###		

Step 1.3: Review "inventory from heaven" in Exercise 6-1. You will create the remaining materials required to manufacture 10 Deluxe Touring Bikes (red), as displayed in the "Quantity to Create" column above.

Exercise Deliverables

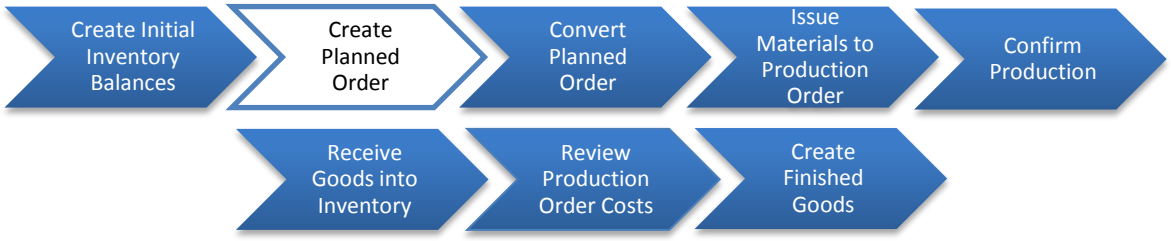
In the System:

- ☑ Created initial inventory balances

On paper:

- ☑ Answers to the Questions

Step 2: Create Planned Order



Normally, the material planning process would determine the need to produce bicycles. However, for the purpose of this exercise, you have manually determined that you need 10 red Deluxe Touring Bikes (DXTR 3###). To manufacture these bikes, you need 20 Touring Aluminum Wheel Assemblies (TRWA1###). Therefore you must produce the wheel assemblies before you produce the bikes.

You will go through the steps in this exercise twice: once for the wheel assemblies, and once for the bikes. The instructions below include the data for the wheel assemblies. When you repeat these steps for the bikes, be sure to modify these data as needed.

- When you go through the production process a second time, do not forget to write down any material document or confirmation numbers SAP gives you.

First, create a planned order for the 20 wheel assemblies.

Step 2.1: Navigate to the transaction to create a planned order:

Navigation

Logistics → Materials Management → Material Requirements Planning (MRP) → MRP → Planned Order → Create

Q1: What is the transaction code to create a planned order: ----------

Step 2.2: In the "Create Planned Order: Initial Screen" enter the following information:

Field Name	Data Entry
Planned Order Profile	Stock Order

(ENTER)

Step 2.3: In the *"Create Planned Order: Stock Order"* screen, enter the following information:

Field Name	Data Entry
Material	Code for your Touring Aluminum Wheel Assembly
Planning Plant	Code for Plant Dallas
Order Quantity	20
Order Finish	One week from today
Producing Plant	Code for Plant Dallas
Storage Location	Code for Semi-Finished Goods

- Note: Each bike requires two Touring Aluminum Wheel Assemblies.

 (SAVE)

Q2: Write down your planned order numbers: ----------

Outcome and Analysis

You have now created a planned order for production.

Refer to a previous exercise for instructions on how to review your material inventory balance. After you review this inventory, answer the following questions.

- Make certain you check the location for semi-finished materials rather than for raw materials.

Q3: How many Aluminum Wheel Assemblies are unrestricted: ----------

Refer to a previous exercise for instructions on how to review your material inventory account. After you review these accounts, answer the following questions.

Q4: What is the dollar value of the Aluminum Wheel Assembly in inventory: ----------

Exercise Deliverables

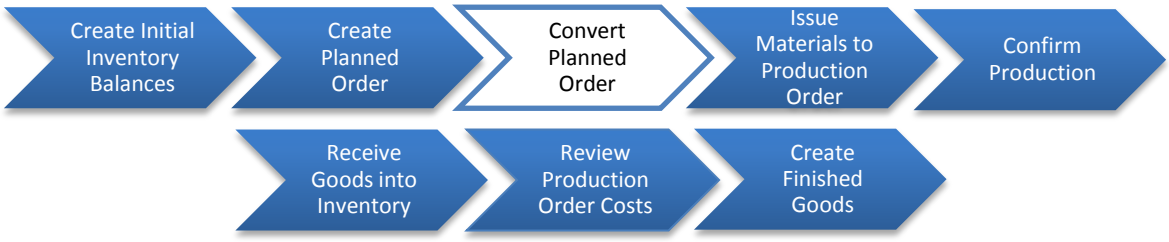
In the System:

- ☑ Created initial inventory balances

On paper:

- ☑ Answers to the Questions

Step 3: Convert Planned Order



In this step, you will convert the planned order into a production order. That is, you will authorize the production of the Touring Aluminum Wheel Assembly.

Step 3.1: Navigate to the transaction to convert your planned order:

Navigation

Logistics → Production → MRP → Evaluations → Stock/Requirements list

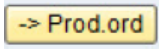
Q5: What is the transaction code to view the Stock/Requirements list: --------

Step 3.2: In the "Stock/Requirements List: Initial screen" enter the following:

Field Name	Data Entry
Material	Code for Touring Aluminum Wheel Assembly
Plant	DL00

 (ENTER)

Click on the  button in the first column, for the row with the first planned order (PldOrd). This screen will display details of the planned order.

Next, click on the 

button. You will see a screen called "Production order Create: Header" and a message that reads "Release carried out."

 (SAVE)

Q6: Write down the order number displayed in the resulting message: ----- [ ]

You are back in the Stock/Requirements list screen. Refresh the data by clicking the  button. You will notice that the "MRP element" column has changed from PldOrd to PrdOrd.

- Remember that you will authorize the production of DXTR3### the second time you complete this exercise. However, if you try to do this before you have completed the production of the wheel assemblies (TRWA1###), you will get a message indicating that the release is rejected because all of the materials needed to make DXTR3### are not available.

Outcome and Analysis

Refer to a previous exercise for instructions on how to review your material inventory balance. Review the inventory of your materials, and then answer the following questions.

- Make sure you check the location for the semi-finished materials rather than the raw materials.

Q7: How many Aluminum Wheel Assemblies are unrestricted: ---------- [ ]

Q8: How many Aluminum Wheel Assemblies have a blocked status: --------- [ ]

Refer to a previous exercise for instructions on how to review your material inventory account. . Review this inventory, and then answer the following questions.

Q9: What is the dollar value of the Aluminum Wheel Assembly in inventory: ---------- [ ]

Exercise Deliverables

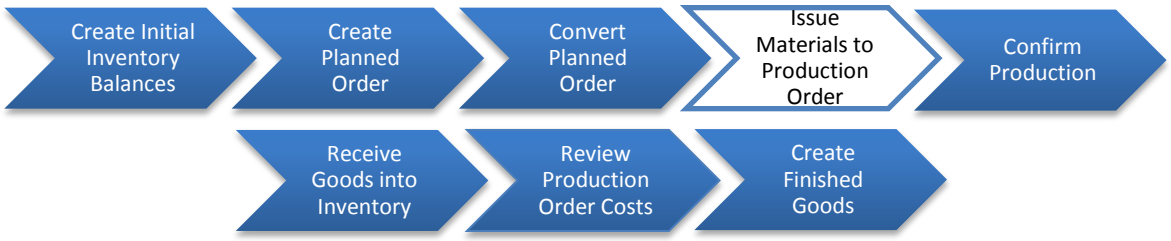
In the System:

- ☑ Converted planned orders

On paper:

- ☑ Answers to the Questions

Step 4: Issue Materials to Production Order



In the previous step, you authorized production of the wheel assemblies. In this step you will release (issue) the materials needed to produce the assemblies.

Step 4.1: Navigate to the transaction to issue materials to the production order:

Navigation

Logistics → Production → Shop Floor Control → Goods movement → Goods Issue

Q10: What is the transaction code to issue materials to the production order: ----------

Step 4.2: In the *"Enter Goods Issue: Initial Screen"* enter the following information:

Field Name	Data Entry
Movement Type	261
Plant	*Code* for plant Dallas
Storage Location	*Code* for raw materials

Click on the reference 

button. Enter your order number. (If you did not write it down, then you can search for it)

Click on the 

button.

Click on the Adopt  button (or Enter) to accept the details for each item. You will go through screens for each material. Make sure that the plant and storage locations are correct.

 (POST/SAVE)

Q11: Record the document numbers: ----------

Outcome and Analysis

You have now issued your materials and authorized production.

Refer to a previous exercise for instructions on how to review your material inventory balance. After you have reviewed this inventory, answer the following questions.

- Make certain to check the location for semi-finished materials rather than for raw materials.

Q12: How many Aluminum Wheel Assemblies are unrestricted: ----------

Q13: How many Aluminum Wheel Assemblies have a blocked status: ----------

Refer to a previous exercise for instructions on how to review your material inventory account. After you have reviewed inventory, answer the following questions.

Q14: What is the dollar value of the Aluminum Wheel Assembly in inventory: ----

Exercise Deliverables

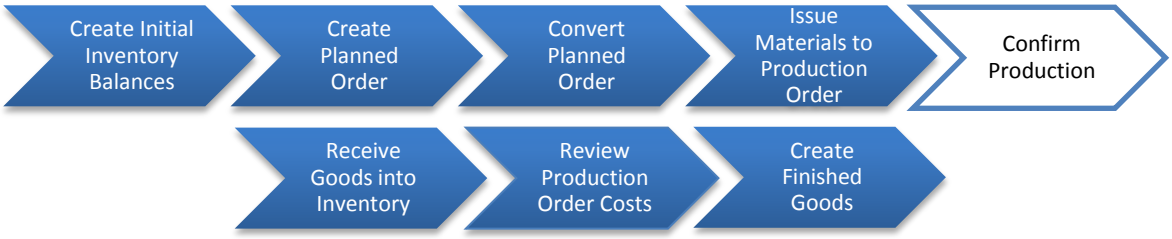
In the System:

- ☑ Issued materials to production

On Paper

- ☑ Anwers to the Questions

Step 5: Confirm Production



After the materials have been released to the production order (previous step), the actual production takes place. When the production has been completed, it is necessary to inform the system of this fact. In this step you will confirm the production of wheel assemblies.

Step 5.1: Navigate to the transaction to confirm your production order:

Navigation

Logistics → Production → Shop Floor Control → Confirmation → Enter → For Order

Q15: What is the transaction code to confirm production: ----------

Step 5.2: In the *"Create Production Order Confirmation: Initial Screen"* enter your production order number.

(ENTER)

Step 5.3: In the *"Confirmation of Production Order Create: Actual Data"* screen, enter:

Field Name	Data Entry
Confirmation Type	Final Confirmation
Yield to confirm	Enter the quantity authorized to produce in the previous step

(SAVE)

- You should receive a message indicating that the confirmation for your order number was saved.

At this point, the material is on the production floor and must be recorded (received) into inventory. You will perform this task in the next step.

Outcome and Analysis

Refer to a previous exercise for instructions on how to review your material inventory balance. After you have reviewed this inventory, answer the following questions.

- Make sure you check the storage location for semi-finished materials rather than for raw materials.

Q16: How many Aluminum Wheel Assemblies are unrestricted: _____

Q17: How many Aluminum Wheel Assemblies have a blocked status: _____

Refer to a previous exercise for instructions on how to review your material inventory account. Review this inventory, and then answer the following questions.

Q18: What is the dollar value of the Aluminum Wheel Assembly in inventory: _____

Exercise Deliverables

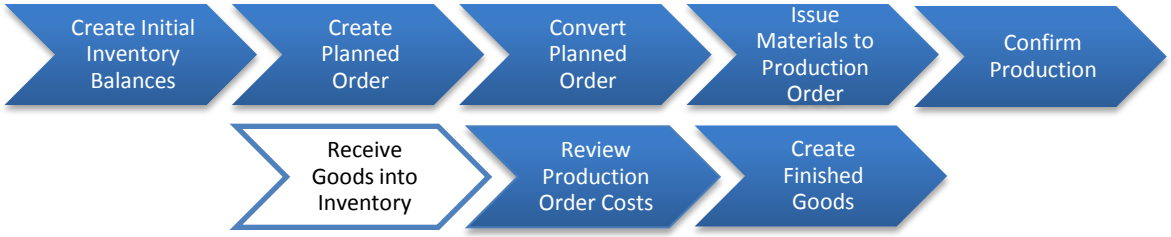
In the System

- ☑ Production confirmed

On Paper:

- ☑ Answers to the Questions

Step 6: Receive Goods into Inventory



In this step you will receive (record) the material produced into inventory.

Step 6.1. Navigate to the transaction to receive goods into inventory:

Navigation

Logistics → Shop Floor Control → Goods Movement → Goods receipt

Q19: What is the transaction code to receive goods into inventory: ----------

Step 6.2. In the *"Goods Receipt for Order: Initial Screen"* enter the following information:

Field Name	Data Entry
Document Date	Today's Date
Posting Date	Today's Date
Movement Type	101
Order	Your Order Number
Plant	DL00
Storage Location	SF00

Click on the Adopt + details button.

Check the box next to "Deliv. Compl."

- Make sure that the storage location is correct – SF00 for semi-finished goods
- FG00 for finished goods

Click on the Adopt  button (or Enter) to accept the details.

 (SAVE).

Q20: Record the document numbers ----------

Outcome and Analysis

You have now received the materials you produced into semi-finished goods inventory.

Refer to a previous exercise for instructions on how to review your material inventory balance. After you have reviewed inventory, answer the following questions.

- Make sure you check the location for semi-finished materials rather than for raw materials.

Q21: How many Aluminum Wheel Assemblies are unrestricted: ----------

Q22: How many Aluminum Wheel Assemblies have a blocked status: ----------

Refer to a previous exercise for instructions on how to review your material inventory account. After you have reviewed this inventory, answer the following questions.

Q23: What is the dollar value of the Aluminum Wheel Assembly in inventory: ----------

Exercise Deliverables

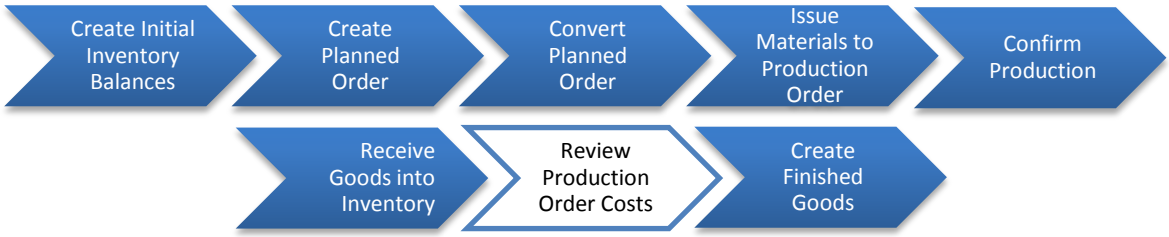
In the System

- ☑ Good received in inventory

On Paper:

- ☑ Anwers to the Questions

Step 7 : Review Production Order Costs



Step 7.1. Navigate to the transaction to review production order costs:

Navigation

Logistics → Customer Service → Service Processing → Order → Capacity Planning → Leveling → General → Requirements → Production Order → Information System → Controlling Reports → Product Cost by Order → Detailed Reports → For Orders

Q24: What is the transaction code to view production order costs: ----------

Step 7.2. In the *"Analyze Order: Target/Actual - Comparison"* screen enter the number of your Production Order from Step 5.

- If the system prompts you for a controlling area, enter NA00.

(EXECUTE)

Review the information by double-clicking on each of the listed documents.

Q25: What is the actual cost of production for the Aluminum Wheel Assemblies: ------

Exercise Deliverables

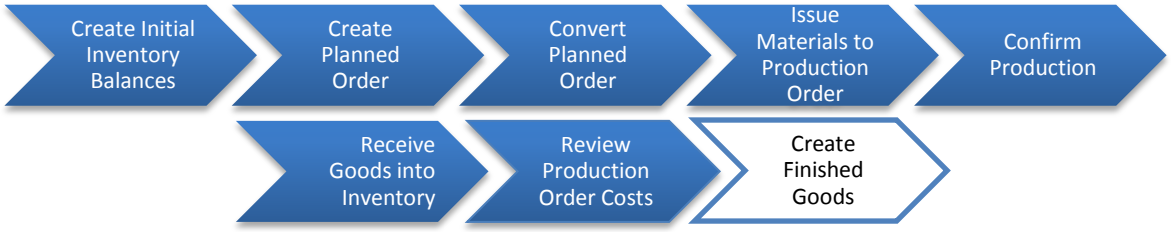
In the System

- ☑ Production Order Costs reviewed

On Paper:

- ☑ Answers to the Questions

Step 8: Create Finished Goods



- At this point you have completed the production of the semi-finished good Touring Aluminum Wheel Assembly. You now have to produce the Red Deluxe Touring Bike. You do this by repeating Steps 2 through 7 for the Red Deluxe Touring Bike instead of for the Touring Aluminum Wheel Assembly.

- Be careful to select the correct information for storage locations. The components needed to produce the bike (chain, etc) are located in "Raw Materials." The Touring Aluminum Wheel Assembly that you just produced is located in "Semi-Finished Goods." When you have completed the production of the Red Deluxe Touring Bikes, you will receive them into the "Finished Goods" storage location.

- When you are producing your Deluxe Touring Bikes finished good, you will receive an error message in Step 4.1 if you do not change the storage location for the Touring Aluminum Wheel Assembly from raw materials to semi-finished goods.

Attachment 1: Exercise Answer Sheet

Name(s): _____

Course & Selection: _____

Identifier: _____

Client: _____

Q1: What is the transaction code to create a planned order:

Q2: Write down your planned order numbers:

Q3: How many Aluminum Wheel Assemblies are unrestricted:

Q4: What is the dollar value of the Aluminum Wheel Assembly in inventory:

Q5: What is the transaction code to view the Stock/Requirements list:

Q6: Write down the order number displayed in the resulting message:

Q7: How many Aluminum Wheel Assemblies are unrestricted:

Q8: How many Aluminum Wheel Assemblies have a blocked status:

Q9: What is the dollar value of the Aluminum Wheel Assembly in inventory:

Q10: What is the transaction code to issue materials to production order:

Q11: Record the document numbers:

Q12: How many Aluminum Wheel Assemblies are unrestricted:

Q13: How many Aluminum Wheel Assemblies have a blocked status:

Q14: What is the dollar value of the Aluminum Wheel Assembly in inventory:

Q15: What is the transaction code to confirm production:

Q16: How many Aluminum Wheel Assemblies are unrestricted:

Q17: How many Aluminum Wheel Assemblies have a blocked status:

Q18: What is the dollar value of the Aluminum Wheel Assembly in inventory:

Q19: What is the transaction code to receive goods into inventory:

Q20: Record the document numbers

Q21: How many Aluminum Wheel Assemblies are unrestricted:

Q22: How many Aluminum Wheel Assemblies have a blocked status:

Q23: What is the dollar value of the Aluminum Wheel Assembly in inventory: ----------

Q24: What is the transaction code to view production order costs: ----------

Q25: What is the actual cost of production for the Aluminum Wheel Assemblies: ----------

Use the answers to the questions above to complete the following table.

	After Creating a Planned Order	After Converting a Planned Order	After Issuing Materials to Production Order	After Confirming Production Order	After Receiving Goods into Inventory
How many Alum. Wheel Ass. are unrestricted					
How many Alum. Wheel Ass. are blocked					
What is the dollar value of the Aluminum Wheel Ass. in inventory					
What are the planned costs					
What are the actual costs					

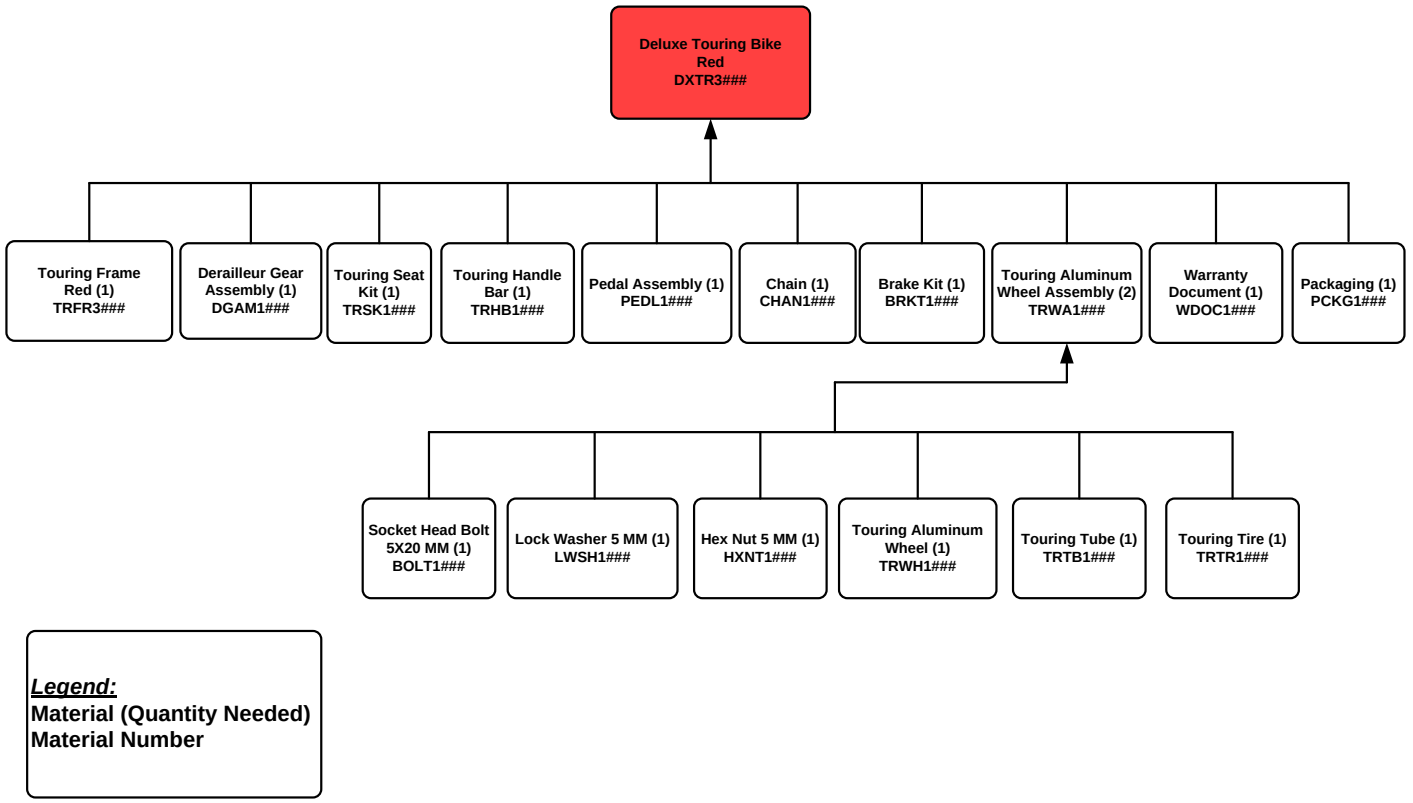


Figure 1: Deluxe Touring Bike (Red) Bill of Materials