



Main General Algorithm | 1

Summary:
Instore Purchase

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- Server computes the customers updated status.
- Server updates money owed to specific Retailer / Store Location
- more to be added...

Next Step: Algorithm 2 (Background Processing) ei. processes all of data above after transaction has ended. (On other sheet)



Post Purchase Algorithm | 2

Summary:
What server does after
transaction complete.

Updates user incentive status.
Updates user purchases.
etc.

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How Info Stored

The information in this
document is intellectual
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Brands Who Sign Up W/ Snip: How Their Info is Stored | Hash Table Structure

M&M's	Frito-L	Tide	Jell-O
Coke	Pepsico	Dawn	etc.

Hash Table With All Brands

Brand can be found by using first section of
UPC Code

Coke Zero (12)	Diet (8oz)	Diet (Cans)	etc.
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Hash Table With Products that Brand Sells

Product Hash Table lives with Brand Location

Product can be found by using second section of
UPC Code

Maybe keep track of parent companies seperately, ex:

Pepsico = FritoLay + Pepsi + Gatorade + Quaker + ...

User Profile (more to be added/ revised) (Separate Structure)

```
struct UserProfile {  
  Ptr *Products;    -- All products bought  
  Ptr *Rewards;     -- Committed Brands/ Rewards: STATUS  
  int ID;  
  int Password;  
  struct Card { .... };  
  ....  
  ....  
}
```

Products Purchased (Ptr *Products)

Sodas	Detergents	Tools

Products Rewards (Ptr *Rewards)

General Algorithm for Updating User Program Progress. Fine Details and steps in between steps need to be added.

All UPC Codes from
Trasaction and
User + Store Info

1 01234 45678 2
1 82884 45879 5
8 12577 97618 8
3 07532 42478 1



Brand

Specific Product

Find User Data
Location Based on
Card# or User ID

1. Only add purchase data to User Profile if
user signed up for the Particular Brand
Incentive

-- or -- (better, but more space needed)
2. Add purchase data regardless.

Add Products to User's Purchase Data
- If product exists, just update it's counter.
- Else, Allocate memory for Product
structure with it's attributes ex:

(Single) Product Structure

- Category
- Date of Purchase
- Counter (# of same items bought)
- Item Name etc.
- Point to next item ->
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Update Reward Status Based on
Purchases
- If No Conflict Reward; status = true
- If Conflicting Condition; status = false

(Single) Reward Structure

- Category & Brand
- Status = true/ false
- Reason why true/false
- Percent / Goals / etc.
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Push update to user's
wireless devices