Sauces are liquids or semi liquid mixtures. A keen sense of smell, delicate sense of taste, a light, strong hand for the blending, all contribute to the perfect sauce. Long ago, Grimande de la Royere, philosopher and gastronome wrote: “the sauce is to culinary art, what grammar is to language.” A perfect sauce has a colorful appearance, is glowing in its rich smoothness, its texture is that of velvet, and it has a natural flavor and complements the food it accompanies, rather than mask its taste. It provides moisture, color and shine to food.

**Importance of sauces in food preparation**

1. Enhances flavor.
2. Some sauces help in digestion, example mint sauce and apple sauce with roast pork.
3. It gives moistness to the food, white sauce adds creaminess to firm and dry food.
4. Adds color to food, hollandaise sauce served on vegetables adds color.
5. Served as an accompaniment, sometimes gives a contrast taste to another food, example cranberry sauce with roast pork.
6. Sometimes gives name to the dish, example Madeira wine when added to brown sauce, it is called sauce Madeira.
7. Enhances nutritional value of the dish.
8. Dresses and compliments food that need some additional quality and makes the food more palatable, example Chaufroid sauce is used to coat various food items, and gives a god appearance.
9. Gives tartness and contrasts or balances a bland food, example Devil sauce served with eggs give appealing tartness.

**3.1 Classification and uses of Sauces**

<table>
<thead>
<tr>
<th>Basic/Mother</th>
<th>Butter</th>
<th>Dessert</th>
<th>Miscellaneous</th>
<th>Proprietary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hot</td>
<td>Cold</td>
<td>Shrimp</td>
<td>Chocolate</td>
<td>Apple</td>
</tr>
<tr>
<td>Béchamel</td>
<td>Mayonnaise</td>
<td>Anchovy</td>
<td>Melba</td>
<td>Mint</td>
</tr>
<tr>
<td>Veloute</td>
<td></td>
<td>Garlic</td>
<td>Custard</td>
<td>Horseradish</td>
</tr>
<tr>
<td>Espagnole</td>
<td></td>
<td>Colbert</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hollandaise (warm)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tomato</td>
<td></td>
<td></td>
<td></td>
<td>Worcestershire</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Chilly</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Soya</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Tabasco</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>8 to 8</td>
</tr>
</tbody>
</table>
3.2 Composition of Sauces

1. Liquid: the body of sauce
   a. White sauce: Milk,
   b. Veloute sauce: White stock,
   c. Tomato sauce: Vegetable stock or tomato puree,
   d. Brown sauce: Brown stock,
   e. Mayonnaise sauce: Salad/olive/vegetable oil,
   f. Hollandaise sauce: Butter

2. Roux: thickening agent
   a. Types of Cooked Roux (White, Blond and Brown)

3. The flavorings and seasonings

3.3 Thickening agents or Liaisons

These are used to thicken sauces some of them are:

- **Roux**: is fat and flour mixture, which are cooked together. It is cooked to various degrees, namely white, blond or brown. Equal quantities of flour, butter and margarine are taken to prepare the different colored roux. The color acquired depends upon the degree of cooking of the flour, and the color of the sauce depends upon the liquid and roux used.

While preparing sauce, boiling liquid should never be added to a hot roux, as it may become lumpy, a cold liquid to a hot roux, or a hot liquid to an cold roux may be added to get a smooth texture.

- **Starch**: Arrowroot, corn flour, fecule (potato starch), tapioca are used to thicken the sauce. A paste should be made of cold liquid and starch, and then stirred into boiling liquid and allowed to boil, till the starch is cooked. It gelatinizes at 93°C (200°F). Starch contains no gluten and gives clear sauce and thickens more as it cools.

- **Buerre Manie or Manie Butter**: chiefly used for fish sauces. Equal quantities of flour and butter are kneaded together, and very little quantity is added at a time to boiling liquid and stirred well to form a smooth consistency.

- **Yolks of egg and Cream**: It is a liaison, added as a finishing agent at the end of cooking. The product is never boiled, when the liaison is added, or it would curdle. The liaison is added to thicken delicate cream or volute soups. Yolks of eggs are used to prepare mayonnaise by emulsifying it with oil.

- **Blood**: It is usually used for game cooking. It thickens the sauce and gives a particular flavor, example preparation of Jugged Hare.
3.4 & 3.7 Basic Mother Sauces with Recipes, Precautions, Rectifications and Storage

a. Béchamel or White sauce: this sauce is named after Louis de Bechemel. It is prepared with white roux and mildly flavored with onions.

**Recipe for béchamel sauce: 1 liter**

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flour</td>
<td>90 gm.</td>
</tr>
<tr>
<td>Butter</td>
<td>90 gm.</td>
</tr>
<tr>
<td>Milk</td>
<td>1 lit.</td>
</tr>
<tr>
<td>Onion studded with clove and bay leaf</td>
<td>1 no.</td>
</tr>
</tbody>
</table>

**Method:**
1. Bring milk to boil with studded onion and set aside.
2. Melt butter in a thick bottom pan.
3. Add flour, stir and cook the roux over a gentle fire without coloring till it gets a sandy texture.
4. Pour the milk into the roux stirring with a wooden spoon to avoid lumps. Simmer gently for half an hour. Remove the studded onion and pass through a fine strainer, cover with butter to prevent formation of skin.

**Derivatives of Béchamel sauce**
1. **Mornay**: béchamel + Parmesan and Gruyere + cream + egg yolks
2. **Soubise**: béchamel + sautéed, minced onions + pepper + nutmeg + and strained
3. **Cardinal**: béchamel + fish stock + truffle essence + lobster butter + cayenne pepper
4. **Onion sauce**: béchamel + minced onions cooked in milk + seasoning + nutmeg
5. **Scotch egg sauce (escossaise)**: thin béchamel sauce, mixed with hard boiled yolk, sieved, garnished with white of eggs cut into strips.

b. Veloute: It is a basic blonde sauce. It is prepared from blond (light brown) roux and stock. Veloute gets its name from the type of stock used, example fish stock and blond roux – fish veloute.

**Recipe for veloute: 1 liter**

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Butter</td>
<td>90 gm.</td>
</tr>
<tr>
<td>Flour</td>
<td>90 gm.</td>
</tr>
<tr>
<td>Stock (chicken, veal or fish)</td>
<td>1 lit.</td>
</tr>
<tr>
<td>Mushroom trimmings</td>
<td>25 gm.</td>
</tr>
</tbody>
</table>

**Method:**
1. In a thick bottom pan prepare a blond roux.
2. Add cold stock to roux and stir vigorously to avoid lumps.
3. Add mushroom trimmings.
4. Simmer gently for an hour, stirring frequently with a wooden spoon.
5. Pass through a fine strainer and cover with butter, to prevent the formation of skin.

**N.B.** fish veloute should be cooked for 20 min. only and wine should be added at a later stage.
Derivatives of chicken veloute

1. **Allemande**: veloute + egg yolks + mushroom trimmings + cream + juice of lemon
2. **Supreme**: veloute + white wine + parsley + shallots + mushroom trimmings and strain.
3. **Hongroise**: veloute + paprika + white wine + cream

Derivatives of fish veloute

1. **Shrimp**: veloute + fumet + cream + shelled shrimp tails + butter
2. **Vin blanc**: thin fish veloute + yolk of eggs and finished with butter (pour mixture in a double boiler)
3. **Nantua**: veloute + fried mirepoix fish in crayfish butter

Derivatives of Meat veloute

1. **Caper**: veloute + capers
2. **Bercy**: allemande sauce + chopped shallots + white wine + meat glaze + butter, garnished with dices of marrow and chopped parsley
3. **Poulette**: allemande sauce + mushroom essence + lemon juice + chopped parsley

c. Brown or Espagnole sauce

It is made from brown roux and brown stock, or glaze of brown stock. It is one of the most widely used basic mother sauces. Demi-glace is a derivative of brown stock and is widely used for the preparation of other brown sauce derivatives.

**Recipe of Brown sauce or Espagnole: 1 liter**

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fat</td>
<td>60 gm.</td>
</tr>
<tr>
<td>Flour</td>
<td>70 gm.</td>
</tr>
<tr>
<td>Tomato puree</td>
<td>30 gm.</td>
</tr>
<tr>
<td>Brown stock</td>
<td>1 ¼ lit.</td>
</tr>
<tr>
<td>Fat</td>
<td>15 gm.</td>
</tr>
<tr>
<td>Carrots (roughly chopped)</td>
<td>70 gm.</td>
</tr>
<tr>
<td>Onions (roughly chopped)</td>
<td>70 gm.</td>
</tr>
<tr>
<td>Bacon trimmings &amp; pork rind finely chopped</td>
<td>30 gm.</td>
</tr>
<tr>
<td>Parsley, celery and bay leaf</td>
<td>3 gm.</td>
</tr>
<tr>
<td>Mirepoix for flavoring</td>
<td></td>
</tr>
</tbody>
</table>

**Method:**

1. Prepare brown roux in a heavy bottom pan and cool.
2. Add tomato puree, stirring vigorously to blend well and cook on a gentle fire.
3. Sauté the mirepoix in fat and add the sautéed vegetables to the sauce.
4. Simmer gently for 4-6 hours.
5. Remove scum when it comes to the top.
6. Strain and cover with a thin layer of butter.

*N.B. over browning should be avoided, as this tends to make the sauce taste bitter.*
Recipe for Demi-Glaze: 1 lit.

**Ingredients** | **Quantity**
--- | ---
Brown Sauce | 1 lit.
Brown Stock | 1 lit.

**Method:**
1. Mix the above ingredients in a pan and place on a stove.
2. Reduce to fifty percent and add a little sherry (optional) and mix.
3. Slightly butter the top to avoid the formation of skin.

**Derivatives of Brown sauce**
1. **Bercy:** demi-glaze + meat glaze + minced shallots + white wine + sliced bone marrow.
2. **Chasseur:** minced mushrooms, sautéed chopped shallots + white wine reduced + demi glaze + butter + chopped parsley.
3. **Chaudfroid:** demi glaze + aspic jelly + essence of truffles + Madeira
4. **Madeira:** demi glaze + Madeira wine
5. **Bordelaise:** chopped shallots + mignonette pepper + thyme + bay leaves + red wine

d. Hollandaise Sauce
It is a warm yellow and rich sauce. It contains a high percentage of fat and egg yolks. It is an emulsion of butter, lemon juice and egg yolks. Hollandaise is served over grilled or baked fish, vegetables and egg. It is an accompaniment to cauliflower, asparagus, broccoli, salmon, and trout.

Recipe for Hollandaise sauce: 500 gm.

**Ingredients** | **Quantity**
--- | ---
Butter | 500 gm.
Egg yolks | 5
Crushed peppercorns | 8
Vinegar | 30 ml
Lemon juice | 2

**Method:**
1. Melt butter in a pan and keep aside.
2. Place crushed peppercorns and vinegar in a pan and reduce completely.
3. Add one tablespoon of water and cool.
4. Add egg yolks and whisk
5. Place the pan in a double boiler and whisk the egg yolks till a sabayon is formed (thickens). Then gradually add the melted butter until it is blended and forms a smooth sauce. Add lemon juice.
6. Strain through a fine strainer and correct seasoning. Store at 30-37-C, if necessary.

**Rectification:**
If hollandaise sauce curdles or is too thick, beat in a little hot water, a little at a time. If too thin, add a teaspoon of lemon juice to a table of the sauce in a warm bowl and whisk until it is thick, and then add the remaining mixture, a little at a time, whisking all the
time. If this method does not rectify the same, then in a clean bowl add egg yolk, a few drops of hot vinegar and whisk while adding the curdled hollandaise.

**Derivatives of hollandaise sauce**

1. **Maltaise**: hollandaise sauce + zest + juice of blood oranges
2. **Mousseline**: hollandaise sauce mixed with stiffly whipped cream
3. **Noisette**: hollandaise sauce + nut brown cooked butter
4. **Choron**: béarnaise sauce + tomato puree
5. **Béarnaise**: hollandaise sauce + chopped tarragon + chervil

**e. Tomato Sauce**

It is a red kitchen sauce and has some piquancy. It is served with ravioli or spaghetti, eggs, fish and meat; it adds color to the dish.

**Basic recipe of Tomato: 1 lit.**

<table>
<thead>
<tr>
<th>Ingrédients</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flour</td>
<td>80 gm.</td>
</tr>
<tr>
<td>Butter</td>
<td>70 gm.</td>
</tr>
<tr>
<td>Dices of bacon trimmings</td>
<td>40 gm.</td>
</tr>
<tr>
<td>Onions</td>
<td>80 gm.</td>
</tr>
<tr>
<td>Carrots (chopped)</td>
<td>80 gm.</td>
</tr>
<tr>
<td>Celery (chopped)</td>
<td>40 gm.</td>
</tr>
<tr>
<td>Bay leaf</td>
<td>⅓</td>
</tr>
<tr>
<td>Garlic crushed</td>
<td>1 clove</td>
</tr>
<tr>
<td>Tomato puree</td>
<td>100 gm.</td>
</tr>
<tr>
<td>Tomato (chopped)</td>
<td>50 gm.</td>
</tr>
<tr>
<td>Brown stock</td>
<td>450 ml.</td>
</tr>
<tr>
<td>Sugar</td>
<td>10 gm.</td>
</tr>
<tr>
<td>Salt</td>
<td>3 gm.</td>
</tr>
</tbody>
</table>

**Method:**

1. Melt butter in a pan.
2. Add roughly chopped vegetables, crushed garlic and sauté, till slightly brown.
3. Mix in the flour and fry till it gets a sandy texture and gets slightly brown color.
4. Add chopped tomatoes and tomato puree, and stir.
5. Add cold stock, stirring to prevent lumps and bring to boil.
6. Add seasonings and cook for 1 ½ hrs.
7. Skim frequently strain and cover with butter.

**Derivatives of Tomato sauce**

1. **Bretonne**: tom. Sauce + sautéed chopped onions + white wine reduced, strained + butter + parsley
2. **Tomatoed chaufroid**: tomato sauce + aspic jelly
3. **Provençale**: thin tom. Sauce + sliced mushrooms + garlic + sugar + tomato concasse’ + parsley
4. **Italienne**: tomato sauce + demi glaze + chopped shallots + mushrooms + lean ham + fine herbs
5. **Barbecue**: tomato sauce + ketchup + vinegar + sugar
COLD SAUCES

**Mayonnaise** is a basic cold sauce. It is used as a salad dressing and as an accompaniment. It has a wide variety of uses, particularly in hors d’oeuvres and salads. It is a rich sauce, as it is thickened with egg yolk and has a high percentage of fat.

### Basic recipe of Mayonnaise: 1 lit.

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Egg yolks</td>
<td>8</td>
</tr>
<tr>
<td>Salad or olive oil</td>
<td>1 lit.</td>
</tr>
<tr>
<td>French mustard</td>
<td>¼ tsp.</td>
</tr>
<tr>
<td>Vinegar</td>
<td>25 ml.</td>
</tr>
<tr>
<td>Lemon</td>
<td>1</td>
</tr>
<tr>
<td>Seasoning</td>
<td>to taste</td>
</tr>
</tbody>
</table>

**Method:**
1. Place egg yolks, vinegar, seasoning in clean bowl and whisk well.
2. Add oil slowly, a little at a time, whisking continuously, until all the oil is incorporated.
3. Finish the sauce by adding the juice of lemon and warm water.
4. This is done to ensure coherence of the sauce and to prevent its turning or curdling.
5. Mayonnaise is suitable for serving with cold fish, meat and hors d’oeuvres.

**Special points to be noted:**
1. Do not expose mayonnaise to too low a temperature after making it.
2. Initially, the oil should not be added rapidly.
3. Do not use congealed or too cold oil.
4. The oil should be in proportion to the egg yolks.
5. Use hot water when necessary as it acts as a stabilizer.
6. Cover the sauce with a lid, and store in a cool place.

**Rectification of a turned or curdled mayonnaise:**
1. Take a clean bowl, add boiling water or vinegar and gradually whisk in the curdled sauce.
2. Place an egg yolk and gradually whisk in the curdled sauce.
3. If a small quantity of mayonnaise is to be rectified, then put mustard powder in a clean bowl and add in drop by drop, whisking the curdled mayonnaise.

**Derivatives of Mayonnaise sauce**
1. **Tartare**: mayonnaise + hard yolk of eggs, garnished with sweet capsicums
2. **Gloucester**: mayonnaise + sour cream + lemon juice + chopped fennel + Worcestershire sauce
3. **Vincent**: half tartare sauce + half green sauce
4. **Green sauce**: mayonnaise mixed with puree of blanched herbs, spinach, water parsley, chervil, tarragon and pass through fine sieve
5. **Cocktail**: mayonnaise + tomato ketchup + Worcestershire + Tabasco + cream + lemon juice.
3.6 Finishing of Sauces
Certain finishing techniques are used to develop derivatives from the basic mother sauces. There are a great many ways of modifying or adding to a sauce. Among these methods are a number of basic techniques that are used over and over again for making sauces.

**Reduction:** Using reduction to concentrate basic flavors: - If we simmer a sauce for a longer time, some of the water is evaporated, and the resulting product is more flavorful. This is the same technique used when making glazes from Stocks. Some reduction takes place in nearly all sauces depending on how long they are simmered.

**Using reduction to adjust textures:** - Concentration a sauce by reduction also thickens it, as only the water evaporates. If a sauce is too thin, it may be simmered until it reaches the desired thickness.

**Using reduction to add new flavors:** - Reductions are used to flavor sauces. Reductions of other liquids especially red and white wines, with different flavoring ingredients, herbs and spices, are used a great deal in this way.

Reduce wines by boiling. Reduction lessens the acidity of white wine. Red wine reduction makes its perfumes strong. This is also true for Brandies. Fortified wines have delicate perfumes that are easily destroyed. They work best unheated and added at the last minute.

**Straining:** A sauce should always be smooth and lump-free. To bring a sauce's texture to perfection, to create the velvety smoothness straining is necessary. Straining through a china cap lined with several layers of cheesecloth is effective. Straining is usually done before final seasoning.

**Deglazing:** To deglaze means to swirl a liquid in a sauté pan or other pan to dissolve cooked particles of food remaining on the bottom of the pan. It is an important technique for finishing sauces that accompany sautéed items. A liquid such as wine or stock is used to deglaze a sauté pan and then reduced by one-half or three-fourths. This reduction with the added flavor of the pan drippings is then added to the sauce that is served with the item.

**Enriching:** Liaison: In addition to being a thickening agent, the liaison of egg yolks and cream is used to finish a sauce by giving extra richness and smoothness. Heavy cream: Heavy cream has long been used to give flavor and richness to sauces. Butter: A useful enriching technique, both in classical and in modern cooking, is called finishing with butter, or *monter au beurre*. To finish a sauce with butter, simply add a few pieces of softened butter to the hot sauce and swirl it in until it melts. The sauce then should be served immediately. If it is allowed to stand the butter may separate out. Finishing a sauce with butter gives it a little extra shine and smoothness, as well as adding to it the rich, fresh taste of raw butter.

**Seasoning:** Whether or not a sauce is to be given a final enrichment of liaison, cream, or butter it must be checked carefully for seasonings before serving. Remember the last step in any recipe, whether written or not is "adjust the seasonings"
Salt is the most important seasoning for sauces. Lemon juice also is very important. These two seasonings emphasize the flavors that are already there by stimulating the taste buds. Cayenne and white pepper are perhaps third and fourth in importance. Sherry and Madeira are frequently used as final flavorings. These wines are added at the end of cooking (unlike red and white table wines, which must be cooked in a sauce) because their flavors are easily evaporated by heat.

3.8 Miscellaneous Sauces

1. **Bread sauce**: served with roast chicken
   Flavored milk + onions + fine bread crumbs + butter + cream + seasoning

2. **Mint Sauce**: served with roast lamb
   Chopped mint leaves + castor sugar + vinegar

3. **Apple sauce**: served with roast pork
   Apple puree + cinammon powder + sugar + butter + water

4. **Cranberry sauce**: served with roast turkey.
   Cranberries + sugar + water

5. **Horseradish sauce**: served with roast beef
   Grated horseradish + vinegar + seasoning + lightly whipped cream

6. **Roast gravy**: all roasts
   Drippings/essence of roast meats + brown stock
   Not a sauce but an accompanying with roasts.

7. **Pan Gravy**: It is made using meat juices which congeal and caramelize. De glaze the trays or pans with wine or water. The gravy can be thick or thin and can be flavorful or plain.

8. **Jus-lie**: It is made by simmering roast gravy with the addition of little tomato puree, a few mushroom trimmings and a pinch of thyme for 10 – 15 minutes. Then lightly thickened by stirring into the simmering gravy some arrowroot diluted in cold water. Re-boil, simmer for 5 – 10 minutes and pass through a strainer.

9. **Jus Rôti (Roast Juices)**: A jus that comes from deglazing the roasting pan with stock, water or wine. The result is a juice that carries the flavor of the roast and is usually served un-thickened but defatted.

3.9 Flavoured Butters

They are served melted, in a liquid form or as hard butter sauces, butter is mixed with different ingredients, set and cut in fancy shapes and served with food items and they are placed on the hot food items, just before serving and allowed to melt. It can be served separately, along with the dish in a sauceboat and crushed ice. The other name for the butter sauces is compound butter, e.g. anchovy, Colbert, brown butter, etc.

Sauces play a very important part in Western cuisine. Various dishes are named after the sauce that is used. Sometimes very slight variations change the name of sauce and some derivative sauces are used to make other sauces, e.g. demi-glace, Allemande, Normande, Béarnaise, tartare, etc.
Butter Sauces (Compound Butters/Flavored Butters)

1. Maître D’hotel or parsley butter
   Butter + chopped parsley + lemon juice + salt + pepper

2. Shrimp butter
   Butter + finally chopped shrimps

3. Anchovy butter
   Butter + anchovy essence/pounded anchovies

4. Garlic butter
   Butter + pounded garlic

5. Mustard butter
   Butter + mustard paste
   (French mustard-powder form)

Other Sauces

Dessert Sauces

1. Chocolate sauce
   Cocoa powder + sugar + water. Mix and allow to boil on a low frame

2. Custard Sauce
   Custard powder + little cold milk + sugar, mix to smooth paste. Boil remaining milk and stir in the paste to it. Re-boil till thick.

3. Melba sauce
   Raspberry + castor sugar + water. Boil together and strain

4. Orange sauce
   Orange juice + zest of orange + sugar + water. Boil, add cornflour paste and cook for few min

5. Apricot sauce
   Apricot + sugar + water. Boil, stir in dilute cornflower and re-boil. Add a dash of lemon juice