This document will hopefully serve as an introduction and explanation to the topic of Charts or Cheatsheets for songs, as well as concepts such as the Key, chord structure, and so forth.

First off – remember – the internet is filled with incorrect, inaccurate, and absolutely useless music translations. We get these music translations for free, but we also get no guarantee of accuracy. So it goes …

**Basic Song Structure – the KEY**

Each song is written in a KEY, which is the basic scale that the song’s melody and harmony will follow when the song is played using a certain set of chords. We often use the key of C as our example, because that is basically the scale that you play when you use the white keys on the piano. In order to play that song’s melody, or harmonize with that song, the accompanist would only ever have to play on the white keys. If the melody was placed such that it started in another spot, the rules may change such that one of the notes in that scale always had to be played on a black key (in other words, one of those notes was always flatted or sharped). In another spot, it might be placed such that two, three, four, or even more notes might **always** have to be played on a black key.

As you can imagine – some of these keys are much more difficult to play in than others!

In theory, any song can be played in any key – starting on any note on the piano. In practice, certain keys are simply easier to handle for an accompanist.

The key for a particular song is therefore simply related to the scale in which you would play that melody on the piano. The melody might not have the same starting point, but the scale is the same. One song might start on a C, and another song might start on a G, but they’re both written using only the white notes on the piano, so they are therefore both in the key of C.

The structure works the same way. One song might start with a C chord, but another starts with an A minor chord, but they are both written in the key of C.

There is no one “right” key, and there is no one right key for each singer for every song. Amateurs might get caught saying things like “My key is A” or “My key is E”. You wouldn’t ever have a single key that you sing in for every song, because melodies vary so much on their starting point on a scale, and each key is going to have songs that have melodies which go higher, and lower, from that starting point. Each song will have its own key.
Getting a little closer, amateurs might say “I sing this song in A flat” or “I sing this song in E flat”. However, this is akin to saying “I always take my eggs cooked exactly 2 minutes and thirty seven seconds!”. You’re basically saying that you have to sing this song such that the starting note is ONLY on this one scale, out of eleven! If you budge it one smidgeon, you’re sunk!

This is, I hope you can see, fairly unrealistic.

Most voices can sing a particular song through a variety of starting notes. You might start a song on an E (but it is a little low), or an F or F# or G, but when you get to the Ab you’re pushing it, and then if you start on the A you’re squeaking those highest notes.

This means that there is a range of keys for each song that you can use, for each voice.

One famous band leader would sing each song, each night, depending on how his voice was doing. His band knew that if his voice was rough and strained, he’d start every song a half step down from where he’d normally play. If he was feeling particularly well voiced that day, he’d start them a half step up. He’d pitch them wherever he felt the most comfortable on that particular day. (and his poor band had to learn every song in three different keys!)

**Relative Notation and Chord Structure**

Regardless of where you start, however, the chords that are used to play that song are going to still have their same relative position to one another.

So, a certain song might always start on the root chord, then go up four steps, then go up five steps, then go back to the root chord again.

If we used numbers to describe this, we might say that we started on the ONE then moved up to the FOUR, then went to the FIVE.

Musicians use Roman Numerals to describe these relative positions with each other, and we call this “relative notation”.

Thus, we’d say that this song starts on the I, then moves to the IV, then goes to the V, then back to the I.

If this song was in the key of C, we’d use the chords C, F, and G. If this song was in the key of A, we’d use the chords A, D, and E. However, these two sets of chords still have the same relative position to one another. They start on a chord, go up to the fourth chord up, then go up one
more to the fifth chord up, then back to the first chord again. They are both I, IV, V sets.

**Moving a Song Around**

Musicians tend to want to play without sharps or flats. So, if you start seeing a lot of flatted chords, it is probably not the easiest key to play in, and the song may become easier to orchestrate by moving ever so slightly up or down. Since every song can be sung within a range of keys for each voice, this doesn’t generally provide much of a problem for the singer.

This process is called ‘Transposition’, or ‘Transposing a song’. You are moving it such that its basic key is transposed up or down a few steps.

Due to the arrangements of the white and black keys on the piano, this process can be a little tricky. It isn’t as simply as simply moving the letters around. As an example, moving a C up a step on the piano puts it at the black key between C and D, but moving an E up a half step puts it on the F. There are always two notes in a scale that go up to the next white key with only single semi-tone, whilst the other notes in the scale only move up to a black key.

Transposing in a live situation, or “on the fly”, can therefore be rather taxing! And, as I hope you are seeing, transposing to certain positions can require a great number of sharped or flatted notes in order to make the song work in that position. Some keys are just easier to work with than others!

**Types of Chords**

Chords come in four basic patterns.

These are Major and Minor, followed by augmented and diminished.

Major Chords sound happy and bright, and have a certain arrangement to them. Every major chord starts on a note, adds another note that is four notes up on the piano, and adds another note that is three steps up on the piano. This would be the third note in that melodic scale, and the fifth note in that melodic scale. We sometimes call these notes the third, and the fifth.

So every major chord starts on a note, adds the third, and adds the fifth.

Minor chords sound sad or somber. They are achieved by taking the third note above and
moving it down a single half-step on the piano. We say that we are “flatting the third” in order to make the minor chord.

Augmented and diminished chords are used less often in popular music, but more in classical structure or jazz.

Augmented chords are achieved by taking the major chord and moving the fifth note a half step up, or “sharpening the fifth”.

Diminished chords are achieved by taking both the third and the fifth, and moving them down a half step. We “flat both the third and fifth” to achieve a diminished chord.

There are other chords as well. Half-diminished, sustain or “sus” chords, etc.

For the vast majority of songs, simply using major and minor chords is enough, perhaps with the occasional augmented or diminished chord for flavor.

While there might be a ‘more right’ chord than that one (say, a C sus 4 adding a Bb on the bass), playing that C major will do in a pinch, and sometimes we have to work with something expedient rather than taking the time to find something complicated.

Chords, and their relative Positions in the Key

If we used only the white keys on the piano, and started in the key of C, moving each finger up a full white key each time, we would run through seven different chords before we started repeating ourselves.

That first chord is our basic root chord, or tonic chord. It forms the basis of this whole experiment. It is our “one” chord.

Moving up one full white key for each finger, that “two” chord would sound minor – a d minor. Moving up another full white key for each finger, that “three” chord would sound minor again – an e minor.

The “four” chord would sound major, as would the “five” – F major, and G major. The “six” chord would sound minor – a minor. The seventh chord would sound very odd, and it is technically a diminished chord – B diminished.

In relative notation, we would use capital letters in our Roman Numerals to denote major
chords, and lower-case letters to denote minor chords.

Thus, those chords in relative notation would be

\[ \text{I ii iii IV V vi vii(dim)} \]

We again use capital and lower-case letters to denote major and minor chords. So, in the key of C, these chords would be ...

\[ \text{C dm em F G am b(dim)} \]

This same relative association would keep form no matter what the initial chord we used. We could start on the G chord, and so long as we moved up the appropriate number of steps on the piano with each step, we would find those chords in the same position. However, remember that when we transpose, some of those steps move us from white keys to black keys on the piano, and that means some of those chords are flatted or sharped.

The relative chords for the key of G are

\[ \text{G am bm C D em F#(dim)} \]

Some transpositions, remember, can add a lot of sharped or flatted notes. So moving that comfortable song from the key of C down a simple step results in the starting chord being a B, and the relative chords are ...

\[ \text{B c#m d#m E F# g#m a#m(dim)} \]

“But All I wanted was to move it a single step down!” you say.

Indeed you did ... and you changed it such that almost every single chord played has a special rule, where one of those notes in the chord has to be played sharped.

This is why occasionally it is simply easier to leave that song in the key where it was. Playing it in C (a simple half-step up on the piano) is much easier than playing it in B!

**Chords vs. Tabs**

Guitarists developed a shorthand tablature, or “tabs”, noting the positioning of their fingers on the relative strings of their guitar, using numbers to tell the guitarist where to put their fingers. Essentially, this is like the black notes you’d see on sheet music, but using numbers, and is specific only to the guitar.
Tabs are extremely popular with people who wish to learn a specific song, in a specific position, exactly the way it was played on the original recording. It is essentially a guide to placing your fingers in exactly the right position at the right time to play a song.

They look like this ...

```
(0:43)
<table>
<thead>
<tr>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>--------------------------------------------------------</td>
</tr>
<tr>
<td>--------------------------------------------------------</td>
</tr>
<tr>
<td>--------------------------------------------------------</td>
</tr>
<tr>
<td>--------------------------------------------------------</td>
</tr>
<tr>
<td>--------------------------------------------------------</td>
</tr>
<tr>
<td>--------------------------------------------------------</td>
</tr>
<tr>
<td>--------------------------------------------------------</td>
</tr>
</tbody>
</table>

(0:46)
<table>
<thead>
<tr>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>--------------------------------------------------------</td>
</tr>
<tr>
<td>--------------------------------------------------------</td>
</tr>
<tr>
<td>--------------------------------------------------------</td>
</tr>
<tr>
<td>--------------------------------------------------------</td>
</tr>
<tr>
<td>--------------------------------------------------------</td>
</tr>
<tr>
<td>--------------------------------------------------------</td>
</tr>
</tbody>
</table>
```

They are pretty much useless for anybody other than somebody trying to learn how to play that particular song in that particular way on the guitar only.

If you find a site that uses both tabs and chords (like the very popular “Ultimate Guitar” site) then simply choose the “chords” options, and ignore any results showing tabs like the one above.

**Song Formats – Some more useful than others!**

Singers often have difficulty finding charts, and understanding the importance of them. This is simply due to the fact that, more often than not, they haven’t been required to learn the basics of music structure, and the information on a chart looks like so much gobbledygook to them!

All of those C#m and Dsus4 comments on the charts look extremely confusing to somebody who isn’t used to them!

This isn’t their fault – imagine being asked to bring an ancient Greek translation of a poem you would like to read, but you don’t speak ancient Greek?! The other people are asking you to bring the translation, and they need it to help you read your poem, but you don’t speak the language or understand one bit of it. Completely unfair!
Worse than that, many of those ancient Greek translations you find are in a format which, to be honest, is done by non-speakers of Ancient Greek who don’t understand the actual language. And nobody took the time to tell you that!

What’s do I mean?

Well, there is a widespread musical format out there on the internet which is, for all intents and purposes, useless – but it is so common that many people think of it as standard

Take a look at this example somebody posted for the changes for the Cole Porter song, “You’d Be So Nice to Come Home To”.

<table>
<thead>
<tr>
<th>Chord</th>
<th>Chord</th>
<th>Chord</th>
<th>Chord</th>
<th>Chord</th>
<th>Chord</th>
</tr>
</thead>
<tbody>
<tr>
<td>F7</td>
<td>E7</td>
<td>Am</td>
<td>Dm6</td>
<td>C7</td>
<td>Am</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Dm7</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>E7</td>
</tr>
<tr>
<td>You'd be so nice to come home to,</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C7</td>
<td>F</td>
<td>Bb9</td>
<td>F</td>
<td></td>
<td></td>
</tr>
<tr>
<td>You'd be so nice by the fire;</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Am</td>
<td>Dm7</td>
<td>Bm7-5</td>
<td>E7</td>
<td>Fdim</td>
<td>Am</td>
</tr>
<tr>
<td>While the breeze on high sang a lull - a - by,</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>G7</td>
<td>Am6</td>
<td>F</td>
<td>B7</td>
<td>E</td>
<td>B7</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Bm7-5</td>
<td>E7</td>
<td></td>
</tr>
<tr>
<td>You'd be all that I could desire.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Somebody worked very hard to put a lot of chords and changes in this song, in very specific places. However, it is difficult to know exactly where those changes are.

In this example, we would call this a “singer” notation. You *MUST* have somebody singing words to even be able to try to follow the changes. Everything is with a reference to what word the singer is expressing at any one moment. There is no consideration of external beat or rhythm, and no basic structure for musicians to follow. You essentially have to listen to each word the singer is saying, quickly try to read the chord above it, and match appropriately.

In point of fact, those first two chords, above the words “You’d be …” come before the song officially starts. They are started on the upswing before the first beat. They’re not technically part of the structure as musicians would think of it!

This works alright if you already know the song, know the way the singer will sing it, and understand the cadence already. But what about when the singer stops singing? What if you don’t know the song cold ahead of time?
And remember -- not every singer sings the same way. Not everybody uses the same cadence. Some people make mistakes! Some people learned a slightly different version than the original!

Worse yet ... look at those chords at the end of the first two lines. They are simple hanging there in the air. They are obviously spaced apart. How far? Do you wait one beat before playing each note? Two?

If you know the song already, you probably know the general style in which to play those chords. If you don’t know the song already, then this could mean any number of possible arrangements!

This placement of these chords is sloppy at best, inaccurate at worst, and practically impossible to follow if the font/formatting happens to be changed – thereby bumping all of the words and chords into completely different places! (if you must use such notation, remember never to re-format or change the font when printing, as this will move all the spacing about!)

The problems are compounded by things like singer stylistic choices (holding a melodic line longer or shorter than normal), human error, and of course version differences.

So this style of cheat-sheet or chart doesn’t really function – especially in songs where there are LOTS of changes! Yet musicians will carry about hundreds and hundreds of pages of these versions, simply because they are the best they could find. They are great if you know the song already, and completely useless for every other purpose.

Now look at this one
Notice how this is a musician’s score. It says the time signature. 4 beats to the measure. We don’t know how the song goes, but we know that you play an A for 4 measures, and then a B for 2, and an E for 2, etc. Everything is laid out in a structured format. The song exists OUTSIDE of the melodic/sung line. It is set up as an external reference for the entire band to synch up to, and for the singer to them work within.

So long as we play each section, one after another, counting along and following the changes, then the singer can work within that structure and sing the song any old way they please!

This style of chart is the standard for jazz musicians, classical cheat-sheets, and the more proficient modern/pop/rock jammers out there. This style of organized chart allows you to teach a previously-unknown song to people who don’t already know the song – or have them simply follow along the first time through, and learn-as-they-go.

**Special Note about Jazz Charts** – jazz charts, like the one above, use some interesting shorthand (with some occasionally unfortunate regionally-based inconsistencies). The triangle next to a chord means a Major chord. The minus sign next to a chord means a minor chord. The circle-with-a-line-through-it means a diminished chord. The numbers following the chord (such as the B7b9) are simply notations to tell the musician how to adjust the basic chord in order to make it customized for this specific song’s arrangement (in this case, add the 7, and then add a flatted 9).
This shorthand was chosen because they wanted something they could read quickly and easily, in low light, while playing live, and not have a chance of making a mistake. It is easy to mix up an upper and lower case C, or a CM from a Cm in a handwritten note. A triangle and a minus sign are easier to distinguish.

As to those unfortunate regional differences I mentioned … often the triangle is shorthand for a specific type of chord – a Major Seventh chord (you add the seventh note in the scale, but you don’t flat it, as you normally would). However, not every shorthand-user intends this to be the case. For our purposes of testing chords, simply testing the major chord is fine.

If you see those triangles and minus signs, just remember to use major and minor chords.

**The “Real” test – how does it sound?**

Well, we’ve seen two versions, but which one is right?

Both of these charts use extremely different chords, even though they are supposedly in the same key! The first one looks very official, very complex, and includes several changes over several words. It uses more chords and changes per line than the second one. It is complicated, and therefore must be correct, yes? Somebody took the time to post it on the internet after working it out, so I can trust it, right?

Not so much.

The second one is actually a chart copied from the “Real Book” – the pretty-much-official jazz musicians’ standards bible. You can trust it. That’s the one that any musician worth their salt would want to use.

The original “Real book”, and the ones printed over the past twenty years and legally obtainable, are very well respected arrangements.

And that stuff on the internet?

Well, it is an unfortunate truth – sometimes the charts we are given are wrong. Sometimes the work we’ve put in is based on somebody else’s mistake.

And sadly, the only way to really know this is to play them through, and use our ear to test things.
Regardless, if you find chords that work for you, the format that is obviously much, much more useful is the second one. The “chart” format.

You can make your own charts by simply putting the appropriate places in the measure. Count out the appropriate number of beats and copy down the appropriate chord when you see the appropriate spot. If you sing along and count along, put down the chord that happens at the start of each measure, and in the middle of each measure, and so forth.

It takes practice, but it will give you the type of chart that is useful to musicians, instead of a cheat-sheet that is essentially impossible for any but those who already know how to play your version to follow.

**Finishing this off**

I hope that you find this description useful.

Finding the appropriate chords and notes can be difficult, especially if you don’t play an instrument. If you’re unsure as to the quality of a version, you can test them out by using a simple chording instrument online.

Visit [http://www.gootar.com/autoharp/](http://www.gootar.com/autoharp/) and simply press the appropriate major or minor chord button as you sing along with the structure. You can test whether or not that sounds right to you, and if you can sing it in that key.

When you find a structure that you like, then copy it and keep it for your personal collection. Often, I will pair up a copy of the lyrics along with a chart – that way, both vocalists and musicians get the notes that they find most useful.

Most musicians and vocalists carry a repertoire of songs that they are happy with. It makes it much easier to coordinate with other musicians when you can pull out a chart and have everybody follow along. Start building your “book” now, and in no time you’ll have it filled with charts and notes that will make your musical endeavours much more successful.

**Some links and resources:**

*Popular Music*


*Jazz Standards with Transposable Charts*