The Following diagram shows the most common keys on guitar that use "open" strings. This system is remembered by the acronym CAGED (+ F). I also add the key of $F$ to it, along with the keys $\mathrm{Em}, \mathrm{Am}$, Dm. This graph is meant to help you memorize this material and also give you an Exercise. I would recommend each day practicing through these, going through each key, playing 1 measure for each chord of the following progression: I IV V I.

| 1 | C | A | G | E | D | F | (i) | Em | Am | Dm |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| IV | F | D | C | A | G | Bb |  | Am | Dm | Gm |
| V | G | E | D | B7 | A | C |  | B7 | E | A |
| ii | Dm | Bm | Am | F\#m | Em | Gm |  | F\#m | 5 Bm | 5 Em |
| iii | Em | C\#m | Bm | G\#m | F\#m |  | III | G | C | F |
| vi | Am | F\#m | Em | C\#m | Bm |  | VI | C | F | Bb |

Please note that the same order of chords in each key will occur when we add 7 chords, accept we will have, for example, CMaj7, Am7, G7, etc.

A 12 measure (bar) blues progression is another great way to practice these. Give each numeral a full measure in $4 / 4$ time (note that there are 12 numerals, thus 12 measures):
$4 / 4$ I IV I I IV IV I I V IV I V

Example in CAGED keys plus Em and Am

| C | F | C | C | F | F | C | C | G | F | C | G |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| A | D | A | A | D | D | A | A | E | D | A | E |
| G | C | G | G | C | C | G | G | D | C | G | D |
| E | A | E | E | A | A | E | E | B7 | A | E | B7 |
| D | G | D | D | G | G | D | D | A | G | D | E |
| Em | Am | Em | Em | Am | Am | Em | Em | B7 | Am | Em | B7 |
| Am | Dm | Am | Am | Dm | Dm | Am | Am | E | Dm | Am | E |

## Other Progression (Examples are of each progression are given in G major)

ii V I
Am D G
iii vi ii V I
$\mathrm{Bm} \quad \mathrm{Em} \quad \mathrm{Am} \quad \mathrm{D} \quad \mathrm{G}$

I vi ii V iii vi ii V I
$G \quad E m \quad A m \quad D \quad B m \quad E m \quad A m \quad D \quad G$

Going forwards every 4th note or down backwards every 5th note (This pattern can also be done in reverse)

| I | IV | vii | iii | vi | ii | V | I |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| G | C | F\# | Bm | Em | Am | D | G |

All chords in any of the above progressions can be turned to dominant seven chords except the diminished vii chord .

Example in the key of G: B7 E7 A7 D7 G
III7 VI7 117 V I

| I | IV | vii | iii | vi | ii | V | I |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| G7 | C7 | F\# | B7 | E7 | A7 | D7 | G |

## Other Chord Progressions

I ii iii IV V (can be done in reverse)
C $\quad \mathrm{Dm} \quad \mathrm{Em} \quad \mathrm{F} \quad \mathrm{G}$
V vi vii I
G Am Bdim C

| I | vi | IV | ii | bVII | V | iii | I |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| C | Am | F | Dm | Bb | G | E | C |

## Phrygian Cadences (Flamenco Chords)

It is important to use play these using open CAGED+F Em Am Dm chords when playing Flamenco. The sounds of those open chords doing these progressions is a big part of the style. If you want to change keys, you do so with a capo in flamenco. Other styles (like Renaissance music) use this progression but with different voicings.

I have notated it with the minor chord as the one chord (as we are familiar with the minor key), but in reality this progression ends on a the last chord which is a phrygian dominant chord (a major chord built on the 3rd note of the major scale, or the 5th note of the minor scale). The scale that this progression and its chords are derived from is the harmonic minor scale, which is the same as the normal minor scale but with the last (7th) note of the scale raised. So for example, $D$ harmonic minor is $D(1) E(2) F(3) G(4) A(5) B b(6) C \#(7) D(8)$, A harmonic minor is $A(1) B(2) C(3) D(4) E(5) F(6) G \#(7) A(8)$.

| Dm | C | Bb or Gm |  | A(b9) |
| :--- | :--- | :--- | :--- | :--- |
| i | VII | VI | iv | V |
| Am | G | F | E(b9) |  |
| i | VII | VI | V |  |

You can also add chords in between the original progression.

| Dm | G7 | C | F7 | Bb | A |
| :--- | :--- | :--- | :--- | :--- | :--- |
| i | IV | VII | III | VI | V |
| Am | D/F\# | G7 | C7 | F | E(b9) |

Melodic Minor Scale (Example in C minor): Yields 2 dominant seven chords that are used frequently: V7\#4 and V7Alt or V7\#5 b9 b13

Original Minor Scale
C D Eb F G Ab Bb C
Ascending Melodic Minor Scaled (descending is just the original minor scale)
C D Eb/D\# F G A B C

The two dominant and one m7b5 chord that come from the ascending melodic minor scale (Examples from the C melodic minor scale):

VII7, B7Alt: B D\#(3rd) F(\#5th) A(7th) C(b9nth) D/Cx(\#9nth) G(\#5/b6/b13)
F7\#4: F (root) $\quad \mathrm{A}(3 \mathrm{rd}) \quad \mathrm{C}(5 \mathrm{th}) \quad \mathrm{Eb}(\mathrm{b} 7 \mathrm{th}) \quad \mathrm{G}(9 \mathrm{th}) \quad \mathrm{B}(\# 4 \mathrm{th})$

## A-7b5: A C Eb/D\# G

Other Chords from melodic minor scale: C-M7 (C Eb G B G), EbMaj7\#5 (Eb G B D)
The other scales (Chromatic, whole tone, diminish scales)

## Chromatic Scale

Integer notation (chromatic scale in numbers)

| C | C\#/Db | D | D\#/Eb | E | F | F\#/Gb | G | G\#/Ab | A | A\#/Bb | B |
| :--- | :--- | :--- | :--- | :---: | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |

Whole Tone Scale ( 2 scales, 6 notes, divides the chromatic scale by 2)

| C | D | E | $\mathrm{F} \# / \mathrm{Gb}$ | $\mathrm{G} \# / \mathrm{Ab}$ | A\#/B | C |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 0 | 2 | 4 | 6 | 8 | 10 | 0 |


| C\#/Db | D\#Eb | F | G | A | B | C\#/Db |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 3 | 5 | 7 | 9 | 11 | 1 |

Augmented Chord: C E G\#
Dominant Seven Augmented: C E G\# Bb

Diminished Scales and Diminished 7th chords and Dominant 7 flat 9 chords. 8 note scales. Divides the chromatic scale by 4.

1) C Diminished Scale

| C | D | $\mathrm{D} \# / \mathrm{Eb}$ | F | $\mathrm{F} \# / \mathrm{Gb}$ | $\mathrm{G} \# / \mathrm{Ab}$ | A | B | 8 notes | (C) |
| :--- | :--- | :--- | :--- | :--- | :---: | :---: | :---: | :---: | :---: |
| 0 | 2 | 3 | 5 | 6 | 8 | 9 | 11 | 8 notes | (0) |

The chords from the C diminished scale:

1) D7b9: D F\# A C Eb

C\# diminished 7th: C A F\# Eb

| D7(b9) | F7(b9) | G\#7b9/Ab7b9 | B7(b9) | D7b9 |
| :--- | :--- | :--- | :--- | :--- |
| 2 | 5 | 8 | 11 | 2 |
|  |  |  |  |  |
| Cdim7 | D\#dim7/Ebdim7 | F\#dim7/Gbdim7 | Adim7 | Cdim7 |
| 0 | 3 | 6 | 9 | 0 |

2) C\#/Db Diminished Scale

| $\mathrm{C} \# / \mathrm{Db}$ | $\mathrm{D} \# / \mathrm{Eb}$ | E | $\mathrm{F} \# / \mathrm{Gb}$ | G | A | $\mathrm{A} \# / \mathrm{Bb}$ | C | (C\#/Eb) |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 1 | 3 | 4 | 6 | 7 | 9 | 10 | 0 | $(1)$ |

3) D Diminished Scale

| D | E | F | G | Ab | Bb | B | $\mathrm{C} \# / \mathrm{Db}$ | (D) |
| :--- | :--- | :--- | :--- | :---: | :--- | :---: | :--- | :--- |
| 3 | 4 | 5 | 7 | 8 | 10 | 11 | 1 | (3) |

TOTAL SCALES: 6 (7, if you include the chromatic scale)(Note that major, melodic minor, and harmonic minor all have different modes).
12 transpositions
Major/Minor
Harmonic Minor
Melodic Minor
Pentatonic
Two transpositions
Whole Tone
3 transpositions
Diminished Scale

