

CSc 221 Android Project Report

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Basic idea

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- ▶ practice recognizing whole Chinese characters, to improve your speed (not vocabulary)

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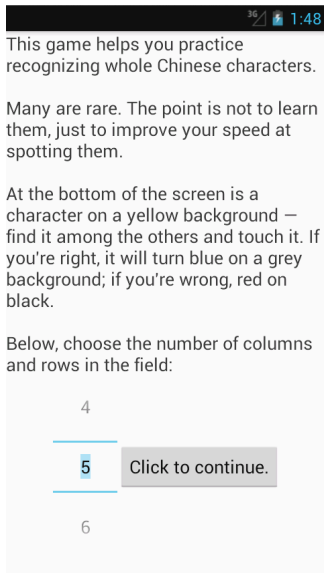
- ▶ practice recognizing whole Chinese characters, to improve your speed (not vocabulary)
- ▶ characters chosen at random, one “target” assigned to user to find among “decoys”

Basic idea

- ▶ practice recognizing whole Chinese characters, to improve your speed (not vocabulary)
- ▶ characters chosen at random, one “target” assigned to user to find among “decoys”
- ▶ app indicates right and wrong choices

Demonstration

Demonstration — Opening screen, choose dimensions



Demonstration — Shown target at bottom

36 1:48

Suǒzi

圈	癩	刃	赫	脏
软	爛	賤	袞	聒
恣	羴	杨	嶢	蔽
颺	迢	軼	榴	淌
搗	餽	茆	瞭	滄

Rows **癩?** Again!

Demonstration — Correct choice turns blue



Demonstration — Incorrect choices turn red on black

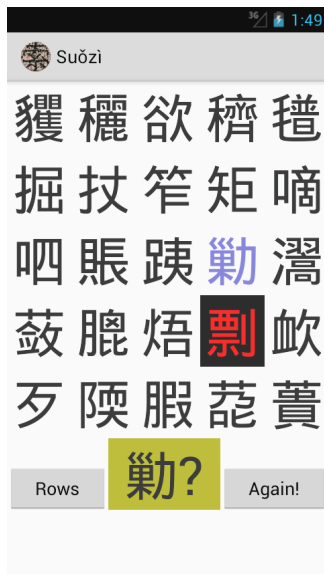
36 1:48

Suǒzì

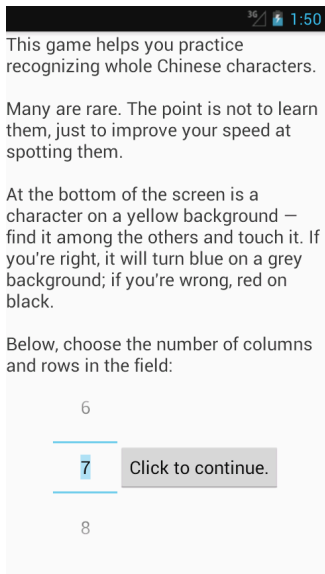
𧢲	𧢲	欲	𧢲	𧢲
掘	杖	竿	矩	滴
咽	賁	踈	勦	濶
𧢲	𧢲	𧢲	𧢲	𧢲
𧢲	𧢲	𧢲	𧢲	𧢲

Rows 勦? Again!

Demonstration — After incorrect choice, can choose again



Demonstration — More interesting with more decoys



Demonstration — More interesting with more decoys

36 1:50

Suǒzi

郅姚岫侖慧彬蔽
武沅掙員蹢粗霹
賃瘡溺馘慙軟鴟
杆昧鋒傾慈裊垸
晒暉齷銖黏憚陟
恣黑鍤屏米學軒
粢港猙窠賻儻庚

Rows **米?** Again!

Demonstration — More interesting with **more** decoys

36 1:51

This game helps you practice recognizing whole Chinese characters.

Many are rare. The point is not to learn them, just to improve your speed at spotting them.

At the bottom of the screen is a character on a yellow background — find it among the others and touch it. If you're right, it will turn blue on a grey background; if you're wrong, red on black.

Below, choose the number of columns and rows in the field:

15


16

17

Click to continue.

Demonstration — More interesting with **more** decoys

36 1:51

 Suōzi

郎倘譽爛簪簇咎砒蠓炜踝扩綾气称罔
棚關契忘謐誘鎖旒嶠禡羸群跟屬败嫫
喼血紕閤館煇憂羈倂鵠詛匙是绍道蠓
鵠抚洮統菹覷膿烂馬驀徵邠嚶疔熬蕪
鑄欄汪岫钟駘綽崙怵湍濯毓瑄啞蜜邏
襍鏹蠟喂蕨銳麻毛踟伋瘳搥梓溟纂夙
提磊徧俟認翥豎鋒髻折鬻禡慧團頷姝
玕屹殃閤醣瑋漣櫟帛铎讖冢兌峇承櫟
髒駱杠飆舛駒苐啓橙鸚吹假钝確璋煥
佞衬錐疲瑛梨杻窳訖敷挨壘駁蝸腩刈
贞侂徙鎗艾赫詘岢矚簌輦鄒漬島跟谄
砒陞泥略渡莖壘廐輶芮巢榷餽竭璵
侮传欲駮淮繫溜靈萑滂咋翕杓蕞縞亟
鰭窳駑碣線猴跋交縹妥柔肱構鎗忒愓
湊娣锥柏迥熯蔴鸬決雉潞蹊闪冕茑凄
燠妾幽旌讠龔逊舅鈞俞炳鄱鹹标頗俳

Rows

鵠?

Again!

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鰭奚弩碣線猴跋奕縹妥柔肱樯鎗恣愔
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燦婁幽旌讵能逊舅鈞俞炳鄱鹹标頗徧

Rows

鵠?

Again!

Demonstration — *More* interesting with *more* decoys!



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19

20 Click to continue.

21

Demonstration — *More* interesting with *more* decoys!

3G 1:52

 Suǒzì

纈倪棣爨賡茵夔簌登屨抉桐虬羸嶠格密躲帖噓
孤拷駟制鹵輜黃嶠諠璽迺珤晉坐欄跽羈在尒菁
佚擦翳廳檣袞惯絃磳板鏃梗斌牢鵠確倪滕蔡硯
铸爭巖煤藻潑濺豔抱復誣嗜符能湮任驍臆剝羯
芭琅挽錦饗惇啊柔嘔臘奴岷夢曠感齊舛蒯蕪鶻
蟬彻慘鑄酖鼎爍陞𠂇娟菟奶燭鯽敦貂經鴿狗耿
絃嘎桎書縈邵𠂇髭劬禱塋哼蟹鏹鸞街翳莹惠显
斑褊攏僅秀菱矜幃罍頸嬌瞞蒼闌瀏繫妨任盪瞢
訖脆扯臂韃号罔掣齏砑阮送樟鉦首泯丕齋滾癰
賺軫蛭堵哟蒲韭蛭嫉爐揭瓊他碓癢筑虽璫共烈
塹瀉痘搨礪药垃簦砒辱狹蟀嚙觚鋤响礪杆椅愜
柁鴉浮託玢翳覓燭鞣恩銳砗迤塹幣擘酖泚鮫瘡
指廩哼招隱繹歛映寤鄴楷鸛涸壚嶠櫛蛸抖暢毳
簠砭揚噓璫快迥笑斐機鈕俊派軹閃梃錘鴻玗底
昵汨由济療欄霏飭倥蒙衿错袖蔥珖病鱗雯刂壘
撫崭或亦肆燿癢鐳縱逦愜黥斯鯢跬泌鶻劍挺妹
蔚筆培鋪醴毫旨增儻璋认須冬鯁茱鄺毒蟬燭睞
肿瀉岫珥牆廣玆𦉳鈷淦廔杭獍漭维劓召齋鞣
歷汎練寐洵鱼跬榼漣馳鹽襪璽頰佻嫺妈啗臚裁
蕨嫪麥二霏亘詎簪苡苜膏瘍塾蜚鰓謁币恆鈺汰

Rows

堵?

Again!

Demonstration — *More* interesting with *more* decoys!



Demonstration — OCD is helpful to studying Chinese

36 2:05

 Suozì

縑倪棧爇廢茵葵軟登屨扶桐虬羸嶠榕密躲帖噉
孤拷驕制鹵輜黃瘠諠暨迺珤晉坐欄跽羈在尒菁
僦揸翳廳檣袞慣絃碑板鏃梗城牢鵠確倪朦蔡硯
铸爭巖煤藻澱黠豔拒榎誣嗜符能漣任驍幃剝鞅
芭琅挽錦饗惇啊柔嘔騰奴峻夢曠感齊舛蒯蕪鵠
蟬徇慘鎭醜鼎爍陞𠂇娟苑奶燭躑敦貂經鵠狗耿
總嘎桎書綦邵𠂇髡劬禱莖哼蟹斲鸞街翊螢惠显
斑褊攏僅秀菱矜幃罍頸嬌瞞萑閨澗緊妨任蘊瞞
訖艱扯臂韃号罔掣翳坭阮送樟鉦首泥歪禽滾癰
賺軫軛塹𠂇蒲韭蛭嫉燼揭瓊他礪獲筑虽瑤共烈
塹滄痘捐礪药垃蒸硯辱狹蟀嚙觥鋤响礪杆椅愜
柁鳩浮託玢翳覓燭鞫惡銳砗迤塹幣掣酡泚鮫瘡
柑縻哼招隱繹歇映狝鄴樞鵠涸壠嶮櫛蛸抖暢毳
簠砭瘍噓璫快飽笑焚機鈕俊派軹閃梔錘鴻竚底
昵汨由濟瘰桐霧飭偃蒙衿錯衲蔥珧病鱗雯刂壘
撫崭或亦肆耀癰鑄縱蘆堪黥鯢跬泌鵲劍挺妹
蕝箏培鎬醞暈旨摺儻瑋认須冬鮐宗鄒毒蟬燭瞞
肿漏沮珣穡膚爪𠂇壘鈐途廔杭獍澹维剗徂鵠鞅
歷隼練寐洵魚跬櫟澁馳鹽襪璫頤佞炯妈齒廳裁
歲嫖寥二霰亘詎簣炀苣膏殤塾蜚鰓聒币恆鈺沱

Rows

堵?

Again!

Demonstration — OCD is helpful to studying Chinese

36 2:05

 Suǒzì

槿嘒忙繇笄詠燭觸鬣西硝禪趨鑰沌骸脉揪揪驢
禡舩婁困邝餒援謁均翫穩繰由幃茱啞憐闌斗腓
篲沘獾攢饒哂哂浸縈悲腓嵐盄襟轄麻挹款濶垓
腿顛漢摹鐸岢珂逆跼磳汁遠蚬惇揖翻登蟻賢指
筓沒腋稼脰園賞谿舂楸嬰嚙鷗粒坪饨麼滌蠅
琺聲葳琰螭瘰縹潤甌觚恩職鈗苧蚡均協保韻
琰滾緇蟻蠅蓮絳舫鸞律鈴苜莖魁煊鍍洽倉夔
沫僕浜愆願桃韻蕙艷俎乞驚獬佻瑯樵棋島燠聽
熾厲謔汜竊譜遇邛意必鑿妮嚙銑翹脰慶恠敕膈
鄔鶉誣駁鑿壓咭胥姁曠鞞撤臼巒影焰禽敷定笏
契筍撻銅鑿鑒櫟倭冁氤輕攝娘鄒廳艾桃稻燮
壩灼驢嗽轅昵狡接斷耆鯁梧浥彰項削蝻佞燿漂
鼓瓊熾熾燎脰蕊遄念繡崇傷巾識駘弘鋼鸛變
損寤諒馮葦雅鷄舒烽鴿務榮杜楛茂霽斯糖箆乳
狩为煉蛭踩秘沌舉丈閭鉅驪碑鉞龐閭蟾濞蹠筴
腓於漸狀讐忆鸛肤攢陳境俟鰾嫩冷愛鍾檣膚虱
遄役貞麗饨钻幫腓岷衰兵尅啞迪躍錄厅嚙地羸
先嶠壽鑄釘遼蓬絳僻蚶夔閃蚰兗萱隻澆福半蕒
溯揚驪洁憤仇曄羣崧祛毯拔胤簡悽鉞鈔聽筴粹
蜂幼舛盹腫姪栖決欲鏤殊恣哄暗梓營蕘舳樞鷗

Rows 盼? Again!

Demonstration — OCD is helpful to studying Chinese

36 2:05

 Suǒzì

槿嘒忙鱸斧詠燭触鬣西硝礮趨鑰沌骸脉嶽嶽驎
禡舩婁困邝餒褻覬均覬穩縹由幃茱嘸憚闌斗覬
篲祗猗攢饒嘒晒浸縈悲腓嵐嘒褸鸛麻挹款濁垓
跽廐漢摹鐔峴珂迺跔礮汁遠蚬惇揖翻登蟻賢揖
筭接腋稼肱園賞亮岩附椽嬰嚙鷗粒坪饨麼滌蠅
琮聲葳琰螭齟瘰縹潤馱觚恩職針苧蚱坞協保觀
琰滾緇蟻蚊蓬絳鸞舫鸞律鈴苜莖魁焔鍍洽倉夔
涑僕浜愜願桃韻蕙艷俎乞驚獬佻瑤樵棋島燠聽
瀝厲謔淨竊譜遇邝意必鑿呢嚙餽翎脰慶恠菽膈
邨輶誣駁鑿壓啮脣腫韋嶽嶽白巒影焔禽敷定笏
娑筭擗鋼塾鑒樑嶺倭冂氤輕撰娘鄢麤艾桃稻燮
壠灼驢燼輶膾踟蕊遑念繡崇僞市識駘圻鋼鸛變
損寤諷馭葦雅鷄舒烽鴿撈堇杜楛茂霏斯糖筭乳
狩为煉蛭踩秘沌學丈閭鉅驛碑鍍龐閨蟾濂蹇策
腓於漸狀讐忆鸛肤攢陳境俟鰓嫩冷愛鍾槽膚虱
遂役貞麓饨钻幫覬岷衰丘尅嚙迪躍鏤厅嚙地羸
先嶠壽鑲釘邀逕縣僻蚩夔閃蚬克萱隻瀛福半萼
溯揚驪洁憤仇盼犖崧祛毯絳亂簡悽鉞眈躑筭粹
蜂幼舛鈍腫姪栖決欲鏤殊恣哄暗梓營蕘舳梔鴉


Rows

盼?

Again!

Demonstration — OCD is helpful to studying Chinese

3G 2:05

 Suǒzì

幅壘岨袒簪寤機猖服茹般榭榭桐禡螭蟬羿芯
浮玲永通癖鵲醺窈佻礪棋菴雀眈醺絕伊杓唐佐
鑰臺醺酖畧詢馱忸昀原鯨恩驤快恣飾噉張菱單
蝓俠硝莢掾贈汜赴腴湛勳鏵標崎劫証撿蟄嶠割
眉亞殘礪诤严旒庫斑闕囁叅呖逞腔一駝苾莧陳
祔藥事崙纒綺冑茂釗脂晦恩响畝參簞蘗猪棄創
担蒸錦嬋饴裔齧寫慕懺咏邦眨伽馮恣醉倪羽類
轆輶姑祿旨鉛銷 綣淖涑饥險虔扁舒稭齟鵠鵠
緒徐広准耜儀瘡藏若鉤萁鴉娶躑躅橫貸玆鵠序
鵠臺腦茫橋欒檣廠艇禰撈疵芥桎癆霽眯輒禽鉸
峻夔航瘋偃此蠱箱愴踢迄掄簪舛恃釐維鵠顯籟
裴篋萑戾千鐸痛促齧鏢既闹殺加浞鸞唼默鵠式
移什厖慟慄潑緹鯁纈沽旌哦譽鉤萼钁鴉騷鉅肉
葳割嶺啓巖頤袋倭銜械洧竇携组玆狷漁踰膝
臙欬堅覲勳灼斃窩鉤低傑往导岔碇讎鉢畜購猓
際諄粘紱鵠亭旋開顛獺醺櫛緇摘閭院姑聯淀
阴破徽跼芝鐸規獠附僂豐摯稷吮綴爆暖婢鱗燂
浸殘漱飲災虽藝柳統燎茱碁錐硃硃罔罔罔罔
槲离倭痿羹棠猷頰撫麥荷暹矿瀟厘緣吮亏腿颯
窳鉤輒綬梗迄妄恭籃捏神跛跂禰伐軟割壩監葦


Rows

際?

Again!

Demonstration — More OCD is more helpful

3G 2:05

 Suōzi

幅壘岨袒簪寤機猖服茹般榭桐禡螭蟬羿芯
浮玲永通癖鸛醺窠佻礪棋菴雀眈醺絕伊杓唐佐
鑰臺醯肱畧詢馱炆昀原鯨恩驂快咨飾噉張菱單
蛭俠硝莠掾赕汜裼湍泐鏵標崎劫証撻蟠嶠割
眉亞殘礪诤严旒庫斑闕嘯參呖逞腔一駝苾莧陳
祆藥事崙纒綺冑茂釧脂晦恩响畝參簞蘗猪棄創
担蒸錦嬋饴裔齧寫慕懺咏邦眨伽馮态醉倪羽類
轆鞞姑祿旨鉛銷 綣淩涑饥險虔扁舒稭齟鵝鵠
緒徐広准耜儀瘡穢若鈎萁鴉娶躑躅橫貸玆鸛序
鵠臺腦茫橋燊檣廠艇禰撈疵芥桎癆霽眯輒禽鉸
峻夔航瘋偃此蠹簪愴踢迄掄簪舛恃釐維鵠顯籟
裴篋莧戾千鐸痠促齧鏢既闹殺加浞鸞唼默鵠式
移什厖慟慄潑緹鯁纈沽旌哦譽鉤萼铝鴉騷鉅肉
葳割嶺啓巖頤袋倭銜械洧竇携组玆狷漁踰膝
膾歎堅覲勳灼斡窩鉤低傑往导岔碇讎蚌畜購猓
際諄粘紱鵠亭旋開顛獺醺櫛緇摘閭院姑聯淀
阴破徽跼芝鐸規獠附僂豐摯稷吮綴爆暖婢鱗燂
浸殘敷飲災虽藝柳統燎茱碁錕硃硃罔綯涸閭腴
槲离倭痿羹棠猷頰撫麥荷湟矿瀟厘缘吮亏腿颯
窳鉤輒綬梗迄妄恭籃捏神跛肝憫伐軟割墟監苹

Rows

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36

2:06

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戎扞麋簞時壘刪蚊嬰瞋埜空營陳襪肌礪鯨隋撻
栾耿軀襖畢砲鷗嚴縵愔薦饗義影嬰鐵襪煖沂鍠
斐弼禰禡鼓髡驚翱斜齋蘆墊矜抹糟獮羣胝巖
團璽速繳瑄跟棟恭悖搯訓钉呈藉勾穀皂瑁箴舩
甞针雀砵苕徇廢猞輶鄙惶簞蔀嫗嗑姪擻鯨
钼薛睥咱笱笱交概鉉接縻霏鼈敲噴鑄鍾鋸梓
梵庠簾娃詰薛鯧苾抗醺忌鮓丫徺暖斜以孫姓崑
風蠶銷痢姬袂疸鵠迭斐絃歼誘顛劓簪絨禡兔僂
曙嚙攢杭槁驚蕘漲故譟琢情堯鉛鑲複聞硃产次
冢乘噸齡劓繁淖耻蚤騰疥宅禡紧窩坊裏鉛勞呷
頓澳炊笱拳駁贅寶菲捺涓蠟炊卢币梲廩閉扞鐵
蘇駒鹿師鄣譚崢攝娘劣物垌赧柱武蠹狷鯁塤炭
騰襪蓑穫鉉迎瞞腰邹筭鄧岳券紋芑現砧輶座錦
甞迺灸從斐窖湊焄彈颯熹恢忬惶荆單 接啖却
輶皞挾氫蒼柅夷馳翌找淨螞螃沭蒙輟鄧洱薤琬
娇蠻另簪舞經笱鉾攻隄鋤麥蒞贛獠洊髡震舩
災駟闕拳棘箱瘞稠耗菽雕覺霏徇薺韓霏肥什
縷悞奸鷗俛鑼黠拊訟襪伴僂煩闌驚悞娼综諒寫
玲布隄蹉辮姪蠟災脫眈嫗钉翮皞帶辦莽汛眺邯
蔀邨驪垠奔柳鯢鵠貴箍庆德鎮埠韻膏嫗障揸碍


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災駟闕拳棘箱瘰稠耗菽雕蠟霏鞠鮎韓霏肥什
縵悞奸鵠倂鑼黠拊訟襪伴僊煩闌驚悽娼综娑寫
玲布鍠蹉辮姤螺災脫眈熈钉翮曠帶辦薈汛眺鄧
蔘邨蟻垠奔柳鯢鵠贄箍庆億鎮埠韻髌髌障揸碍

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Again!

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- ▶ 2 spent trying to implement various methods and tuning performance

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- ▶ more game-like qualities

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- ▶ “again” button calls layout-building code recursively — a recipe for disaster

END
終